

LBT-A17CDM/A27CDM D159CD/D209CD/D220CD

SERVICE MANUAL

US Model
D220CD

Canadian Model
D159CD

AEP Model
UK Model
D159CD/D209CD

E Model
A17CDM/A27CDM

Australian Model
A27CDM

These systems are composed of following models.

As for the service manual, it is issued for each component model, then, please refer to it.

COMPONENT MODEL NAME FOR THESE SYSTEM

	A17CDM	A27CDM		D159CD	D209CD	D220CD			
	E	E	AUS	CND	AEP/UK	AEP/G/UK/EE	US		
Compact disc deck	HTC-D159	HTC-D259		HTC-D159	HTC-D209	HTC-D159			
Stereo FM•AM receiver	STR-A17	STR-A27		STR-D159	STR-D209	STR-D159			
Turntable	—			PS-LX52P (Except for EE)		—			
Speaker system	SS-D170			—		SS-D170			

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

PARTS LIST

EE : East European model

CND: Canadian model

G : German model

AUS: Australian model

Parts No.	Description	Remarks
1-465-963-11	COMMANDER, STANDARD (RM-S271) (A27CDM/D209CD)	
1-466-926-11	COMMANDER, STANDARD (RM-S109)	(A17CDM/D159CD/D220CD)
1-501-374-11	ANTENNA, LOOP	
1-501-536-11	ANTENNA (AEP)	
1-696-860-11	CORD, CONNECTION 13P	
2-181-754-01	COVER, BATTERY (RM-S109)	
* 3-376-136-01	CUSHION (HALF) (HTC-D159)	
* 3-703-713-41	STICKER, SONY SYMBOL (10) (STR)	
3-707-584-01	COVER, BATTERY (RM-S271)	
3-756-330-11	MANUAL, INSTRUCTION (ENGLISH) (D159CD:UK)	
3-756-330-21	MANUAL, INSTRUCTION (ENGLISH) (US, CND)	
3-756-330-31	MANUAL, INSTRUCTION (ENGLISH, F) (CND)	
3-756-330-41	MANUAL, INSTRUCTION (ENGLISH, F, E, P) (D159CD:AEP)	
3-756-330-51	MANUAL, INSTRUCTION (D, NL, S, I) (D159CD:AEP)	
3-756-330-71	MANUAL, INSTRUCTION (ENGLISH, F, E, RC) (A17CDM)	
3-756-331-11	MANUAL, INSTRUCTION (ENGLISH) (D209CD:UK)	
3-756-331-41	MANUAL, INSTRUCTION (ENGLISH, F, E, P) (D209CD:AEP)	
3-756-331-51	MANUAL, INSTRUCTION (D, NL, S, I) (D209CD:AEP, G)	
3-756-331-61	MANUAL, INSTRUCTION (ENGLISH, D, POLISH, RUSSIAN) (D209CD:EE)	
3-756-331-71	MANUAL, INSTRUCTION (ENGLISH, F, E, RC) (A27CDM)	
4-937-945-01	PLATE (TRANSPORT), LOCK (HTC-D159/D259)	
* 4-947-532-01	SNOW BOX (L) (PS-LX52P)	
* 4-947-533-01	SNOW BOX (R) (PS-LX52P)	
* 4-956-900-01	CUSHION (UPPER) (D209CD)	
* 4-956-901-01	CUSHION (MIDDLE) (D209CD)	

Parts No.	Description	Remarks
* 4-956-902-01	CUSHION (LOWER) (D209CD)	
* 4-956-906-01	INDIVIDUAL, CARTON (D209CD:UK)	
* 4-957-208-01	CUSHION (SS-D170)	
* 4-957-529-01	INDIVIDUAL, CARTON (A17CDM)	
* 4-957-530-01	INDIVIDUAL, CARTON (D159:UK)	
* 4-957-532-01	INDIVIDUAL, CARTON (A27CDM:AUS)	
* 4-957-533-01	INDIVIDUAL, CARTON (D220CD)	
* 4-957-627-01	INDIVIDUAL, CARTON (D159:AEP)	
* 4-957-628-01	INDIVIDUAL, CARTON (CND)	
* 4-957-629-01	INDIVIDUAL, CARTON (D209CD:AEP, G)	
* 4-957-631-01	INDIVIDUAL, CARTON (A27CDM:E)	
* 4-957-639-01	CUSHION (CND)	
* 4-958-208-01	CUSHION (A17CDM, D159CD, D220CD)	
* 4-958-549-01	CUSHION (A27CDM)	
* 4-960-226-01	INDIVIDUAL, CARTON (D209CD:EE)	
A-4674-087-A TURN TABLE MAT ASSY (PS-LX52P)		

F: FRENCH NL: DUTCH E: SPANISH S: SWEDISH
P: PORTUGUESE I: ITALIAN D: GERMAN RC: CHINESE

**COMPACT HI-FI
STEREO SYSTEM
SONY®**

English

93G09069-1D

Printed in Japan

© 1993.7

STR-A27/D209 /D259

SERVICE MANUAL

STR-A27, STR-D209 and STR-259 are the tuner and amplifier section in LBT-A27CDM, LBT-D209CD and LBT-D259CD respectively.



PHOTO: STR-D259

Canadian Model

STR-D259

AEP Model

UK Model

STR-D209/D259

E Model

Australian Model

STR-A27

SPECIFICATIONS

Stereo FM-AM receiver

Tuner

System

FM stereo
FM/AM superheterodyne tuner

FM tuner section

Tuning range

87.5 to 108 MHz (EXCEPT EE)
65.0 to 74.0 MHz (EE)

Antenna
Intermediate frequency
10.7 MHz

AM tuner section

Tuning range

MW:530 to 1710 kHz (Canadian model)

522 to 1611 kHz (Italian model)

531 to 1602 kHz (9 kHz step)

531 to 1710 kHz (10 kHz step)

531 to 1602 kHz (Other models)

LW:153 to 279 kHz

SW:5.95 to 17.90 kHz (Mideastern model)

Antenna

AM loop antenna

External antenna terminal

Intermediate frequency

450 kHz

Amplifier

DIN power output

30 W + 30 W (6 ohms, at 1 kHz)

Continuous RMS power output

35 W + 35 W (6 ohms, at 1 kHz, 5% THD)

Music power output

60 W + 60 W (6 ohms)

Input	Jack type	Sensitivity	Impedance
VIDEO IN	Phono	300 mV	47 kohms
PHONO IN	Phono	3 mV	47 kohms

Output	Jack type	Impedance
SURROUND SPEAKER	Phono	Accepts speakers of 16 ohms
HEADPHONES	Stereophone	Accepts headphones of 8 ohms or more

VIDEO: 15 Hz to 50 kHz $^{+0}_{-3}$ dB

General

Power requirements

220 – 230 V AC, 50/60 Hz(AEP, IT, EE, G)

120 V AC, 60 Hz (CND)

240 V~AC, 50 Hz (UK)

110 – 120 V/220 – 240 V~AC,
50 Hz/60 Hz (E, AUS)

100 W (AEP, AE2, IT, EE, G, UK)

115 W (CND)

170 W (E, AUS, AU2)

Approx. 5.9 kg

Approx. 355 × 225 × 330 mm
(w/h/d, including projections)

Power consumption

Mass

Dimensions

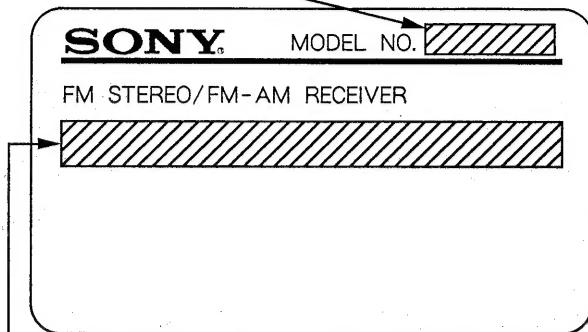
STEREO FM-AM RECEIVER
SONY®

TABLE OF CONTENTS

— MODEL IDENTIFICATION —

(Specification Label)

STR-A27, STR-D209, STR-D259



- CND model : AC : 120V 60Hz 115W
- AEP, IT, EE, G model : AC : 220V-230V~50/60Hz
100W
- UK model : AC : 240V~50Hz 100W
- E, AUS model : AC : 110-120V/220-
240V~50/60Hz 170W

Note : CND : Canadian model
G : German
IT : Italian model
EE : East European model
AUS, AU2 : Australian model

• CAUTION

Be sure to use insulation sheet (A4-959-364-01) when replacing power transformer because it is safely related part.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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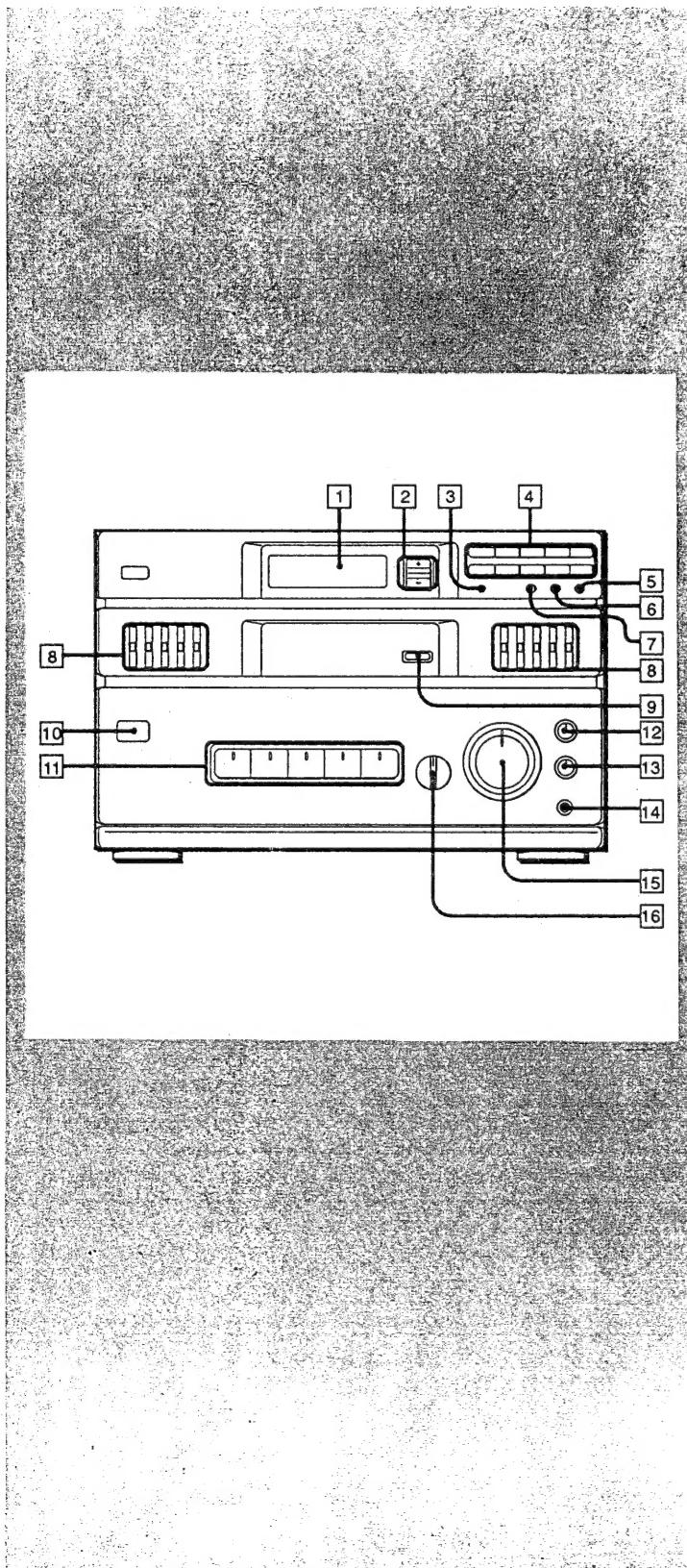
ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1

GENERAL

This section is extracted from instruction manual.



Location of Controls

Refer to the pages indicated in parentheses for details.

Tuner

- ① Display window
- ② DUAL MODE TUNING +/– buttons (20, 22)
- ③ MEMORY button (22)
- ④ Numeric buttons (22)
- ⑤ SHIFT button (22)
- ⑥ BAND SELECT button (20)
- ⑦ ST/MUTE button (20,22)

Graphic Equalizer

- ⑧ 5 BAND GRAPHIC EQUALIZER controls (16)
- ⑨ EQUALIZER switch (16)

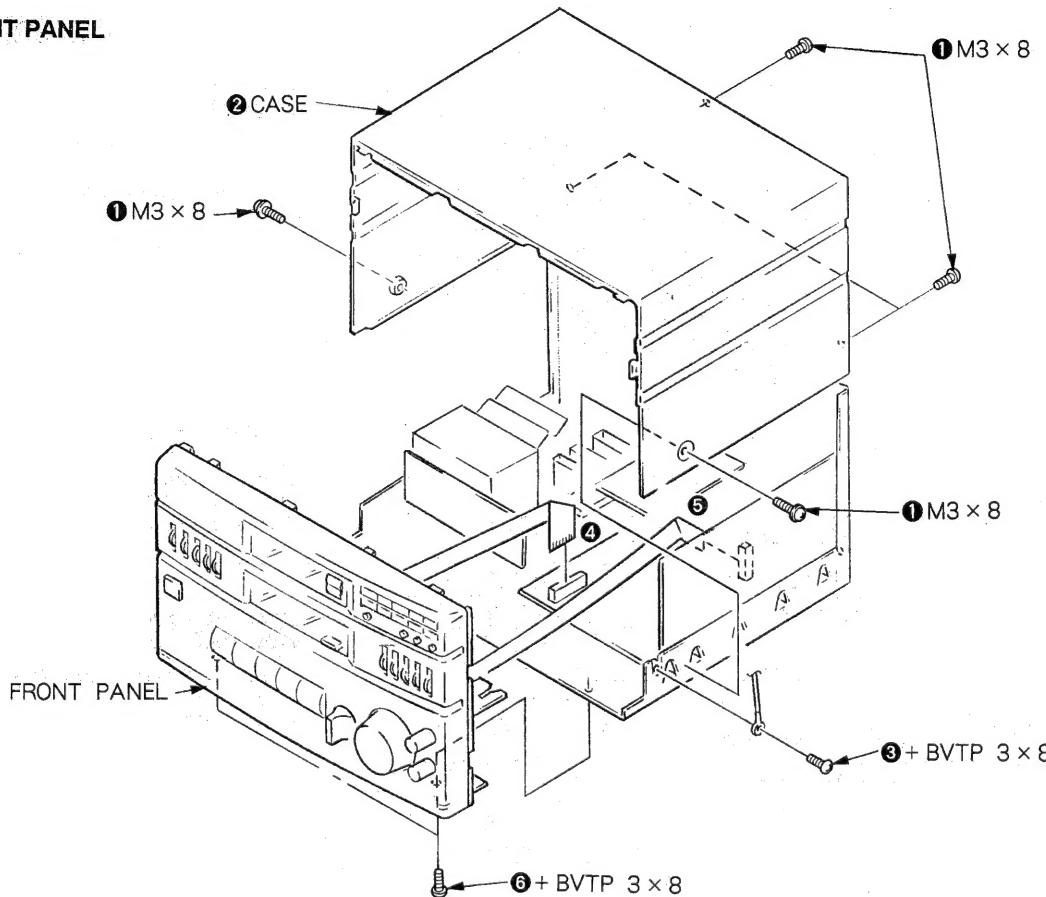
Amplifier

- ⑩ SYSTEM POWER button (14)
- ⑪ Function selectors and indicators (VIDEO/TAPE/CD/TUNER/PHONO)
- ⑫ BALANCE control (16)
- ⑬ SURROUND control (16)
- ⑭ HEADPHONES jack
- ⑮ VOLUME control and indicator (16)
- ⑯ DBFB (dynamic bass feedback) control (16)

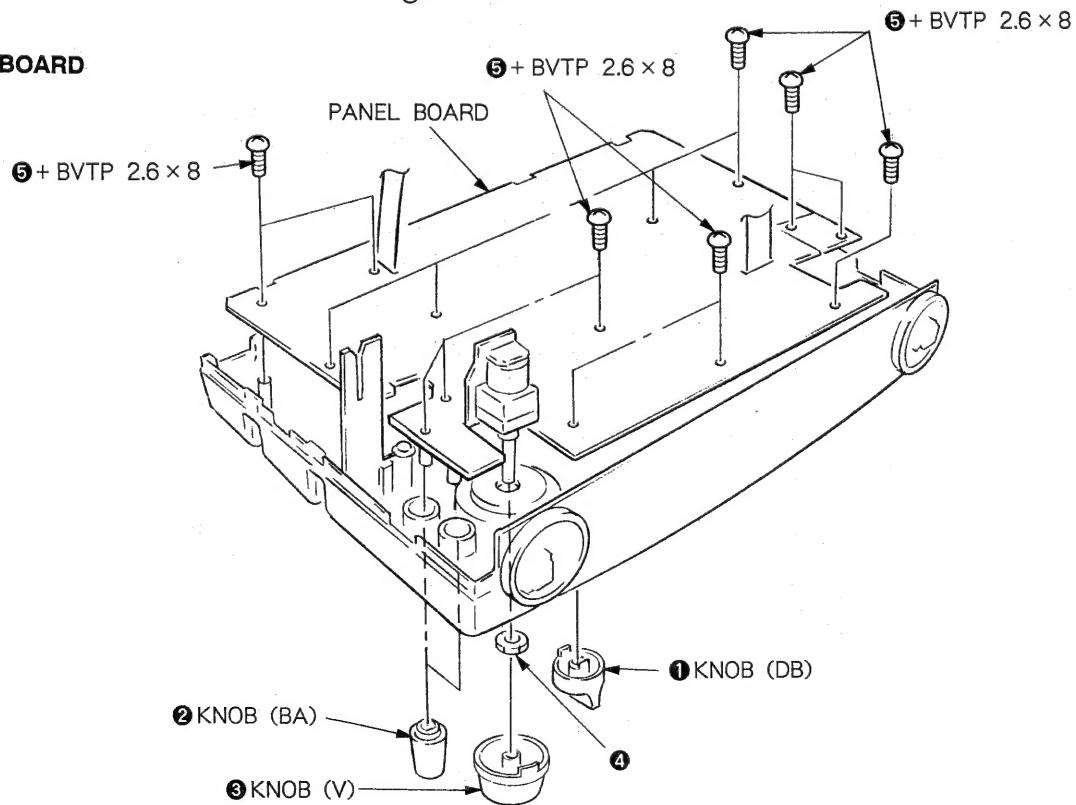
SECTION 2 DISASSEMBLY

NOTE: Follow the disassembly procedure in the numerical order given.

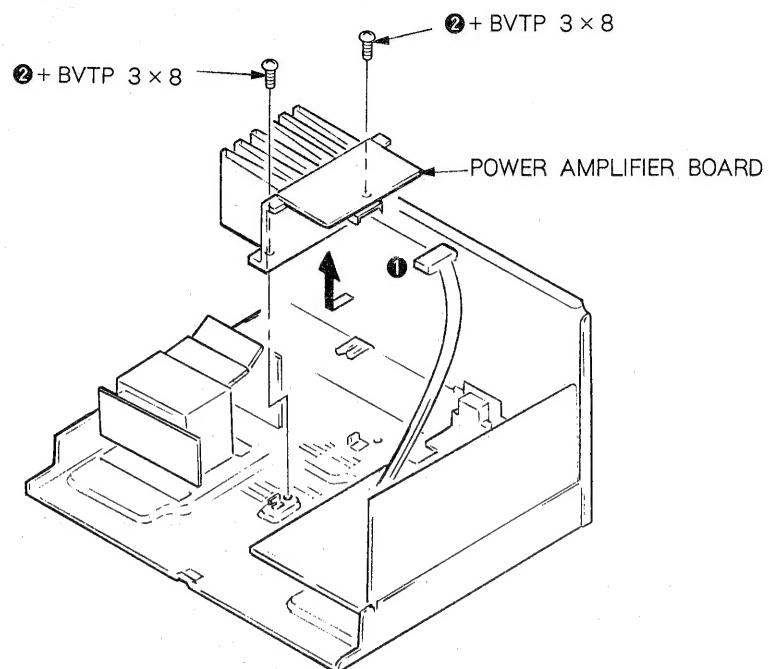
2-1. FRONT PANEL



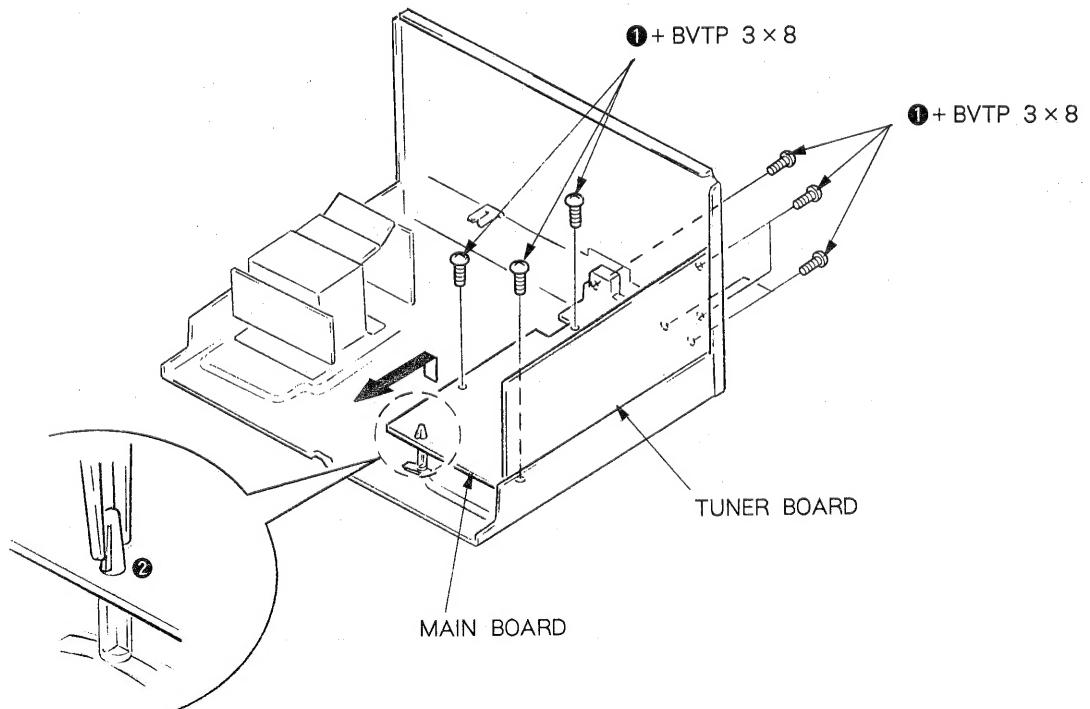
2-2. PANEL BOARD



2-3. POWER AMPLIFIER BOARD



2-4. MAIN /TUNER BOARD



SECTION 3

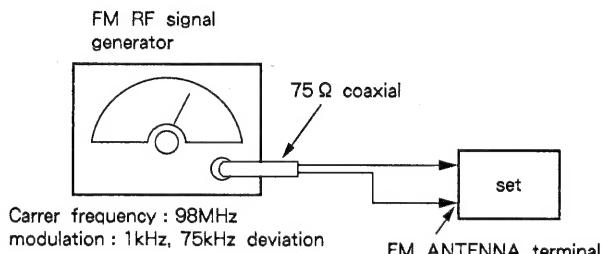
ADJUSTMENTS

Note: As a front-end (FE301) is difficult to repair if faulty, replace it with new one.

TUNER SECTION

FM SECTION ADJUSTMENTS

Setting :



• TUNER OUT CHECK POINT

Speaker out receive 98MHz 60dB μ (1mV) and set the SPEAKER out to 10dBs by VOLUME.

Speaker load : 6 Ω both CH

FM NULL Adjustment

Procedure :

1. Supply a 60dB μ (1mV) 98MHz signal from the ANTENNA terminal.
2. Tune the set to 98MHz.
3. Adjust T301 for 0V reading on the measurement point.

FM Tuned Indication Lighting Level Adjustment

Band : FM

ST/MUTE SW : OFF

Procedure :

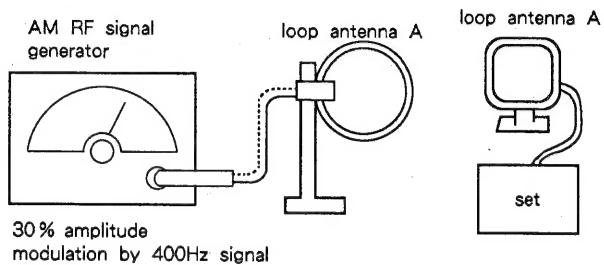
1. Supply a $24 \pm 1 \mu$ V (20 ± 4 dB μ (EE)) (25 ± 4 dB μ (EXCEPT EE)) 98MHz signal from the ANTENNA terminal.
2. Tune the set to 98MHz.
3. Adjust RV302 so that the FL601 [TUNED] light up.

Adjustment Location: main board

- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by trimmer capacitors.

AM SECTION ADJUSTMENT

Setting :



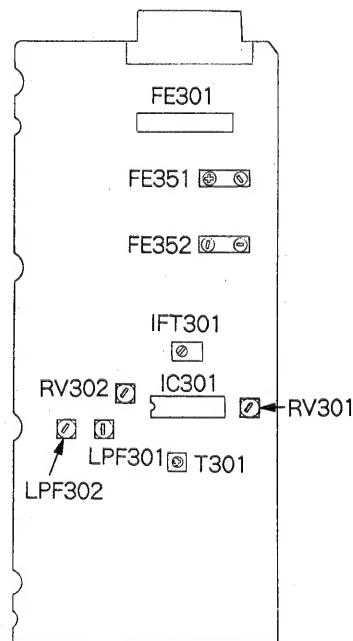
AM Tuned Indication Lighting Level Adjustment

Band : AM

Procedure :

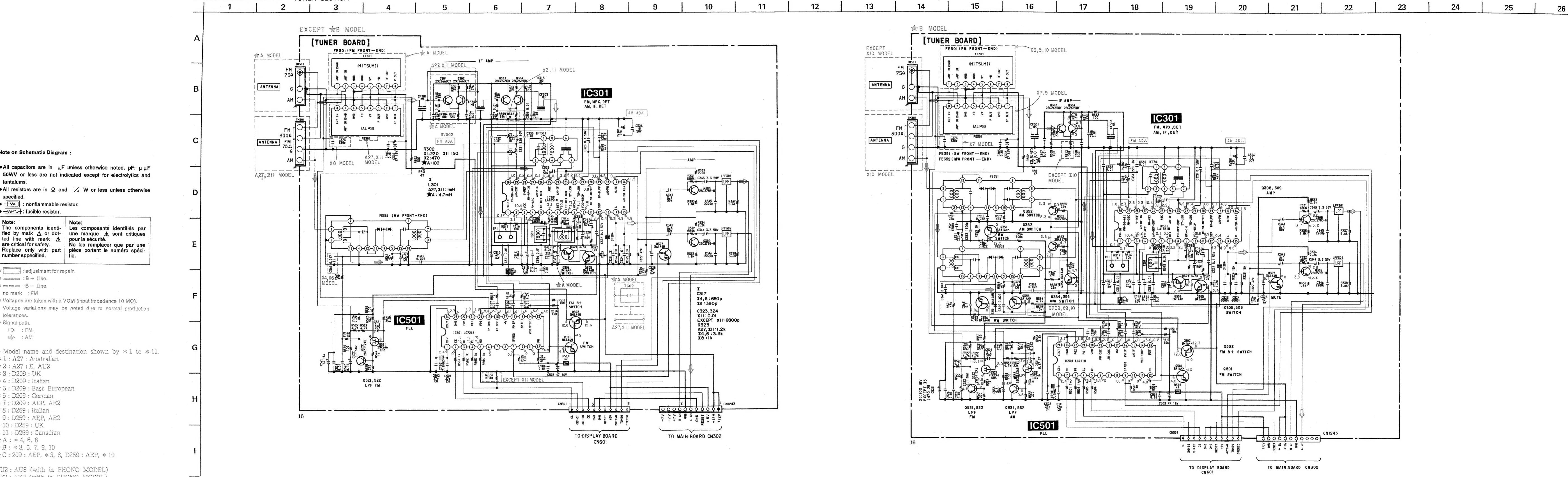
1. Set loop antenna input level to 94dB μ / m, 1050 kHz and no signal tuned light should not on.
2. Tune the set to 1050kHz
3. Adjust RV301 so that the FL601 [TUNED] light up.

Adjustment Location: tuner board



**SECTION 4
DIAGRAMS**

4-1. SCHEMATIC DIAGRAM — TUNER SECTION —



Semiconductor Location

Ref. No.	Location	Ref. No.	Location
0351 (B)	E-6	IC1306	C-12
01201	E-19	IC1601	J-19
01202	E-15		
01203	E-15	Q301 (E)	D-3
01204	G-15	Q302 (E)	D-3
01205	C-14	Q303 (E)	E-3
01251	G-19	Q303 (B)	E-7
01302	E-12	Q304 (E)	E-3
01303	E-12	Q304 (B)	E-7
01304	E-12	Q305 (E)	I-3
01305	E-13	Q305 (B)	I-7
01306	E-13	Q306 (E)	I-3
01307	J-23	Q306 (B)	I-7
01309	I-23	Q307 (E)	H-4
01311	I-24	Q307 (B)	H-9
01316	H-12	Q308 (E)	H-4
01317	J-12	Q308 (B)	H-8
01318	D-13	Q309 (E)	H-4
01319	D-14	Q309 (B)	H-9
01321	B-27	Q351 (B)	D-7
01322	C-27	Q352 (B)	D-7
01323	E-13	Q353 (B)	E-7
01324	E-13	Q354 (B)	E-7
01341	I-14	Q355 (B)	E-6
01345	I-13	Q356 (B)	E-7
01347	J-16	Q501 (E)	F-1
01354	B-25	Q501 (B)	F-6
01355	B-25	Q502 (E)	F-1
01368	D-14	Q502 (B)	F-6
01369	D-13	Q521 (E)	C-4
01370	J-24	Q521 (B)	C-9
		Q522 (E)	B-4
C301 (E)	G-2	Q522 (B)	B-9
C301 (B)	G-7	Q531 (B)	D-8
C501 (E)	E-4	Q532 (B)	C-9
C501 (B)	E-9	Q1201	E-19
C1001	D-11	Q1202	H-18
C1002	G-11	Q1203	H-18
C1003	I-11	Q1204	H-15
C1201	F-20	Q1251	G-19
C1202	F-15	Q1301	J-23
C1302	J-12	Q1302	J-13
C1303	I-14	Q1304	I-15
C1304	H-13	Q1305	I-15
C1305	H-14		

B) : ★ B

) : EXCEPT ★ B

Note on Mounting Diagram :

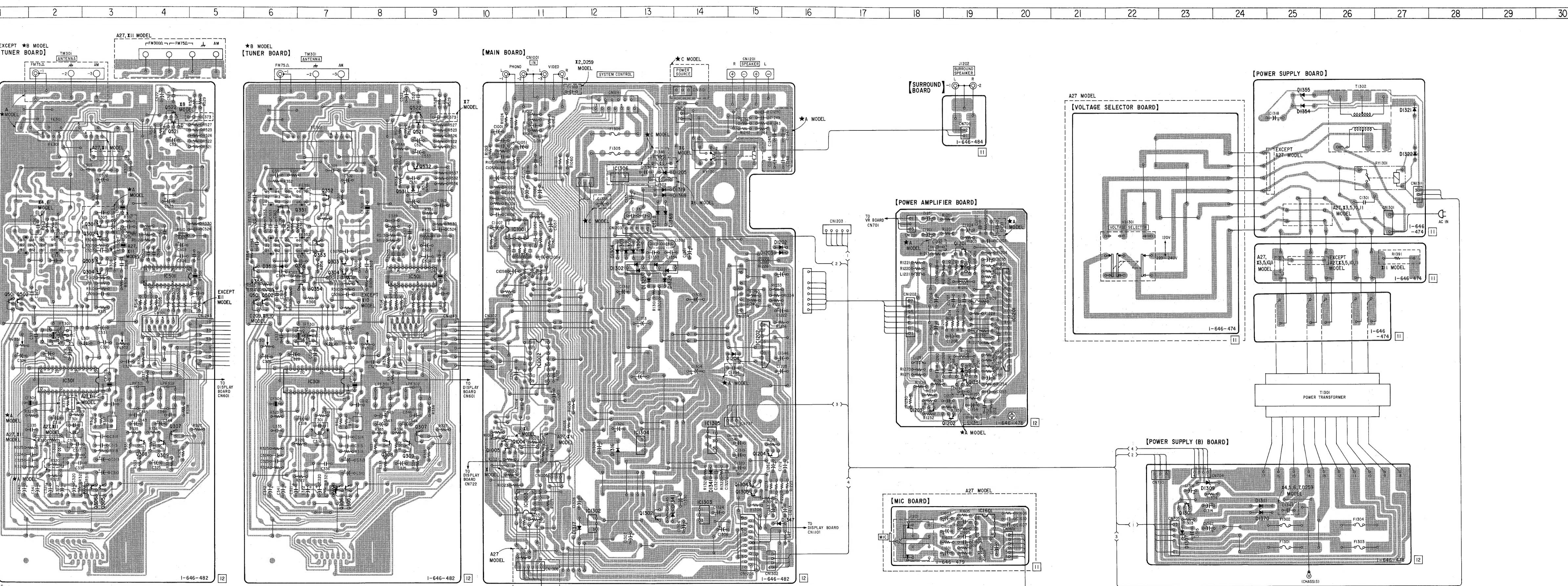
- : Parts extracted from the component side.
 - : Pattern on the side which is seen.

Model name and destination shown by * 1 to * 11.

 - 1 : A27 : Australian
 - 2 : A27 : E, AU2
 - 3 : D209 : UK
 - 4 : D209 : Italian
 - 5 : D209 : East European
 - 6 : D209 : German
 - 7 : D209 : AEP, AE2
 - 8 : D259 : Italian
 - 9 : D259 : AEP, AE2 .
 - 10 : D259 : UK
 - 11 : D259 : Canadian
 - A : * 4, 6, 8
 - B : * 3, 5, 7, 9, 10
 - C : 209 : AEP, * 3, 6, D259 : AEP, * 10

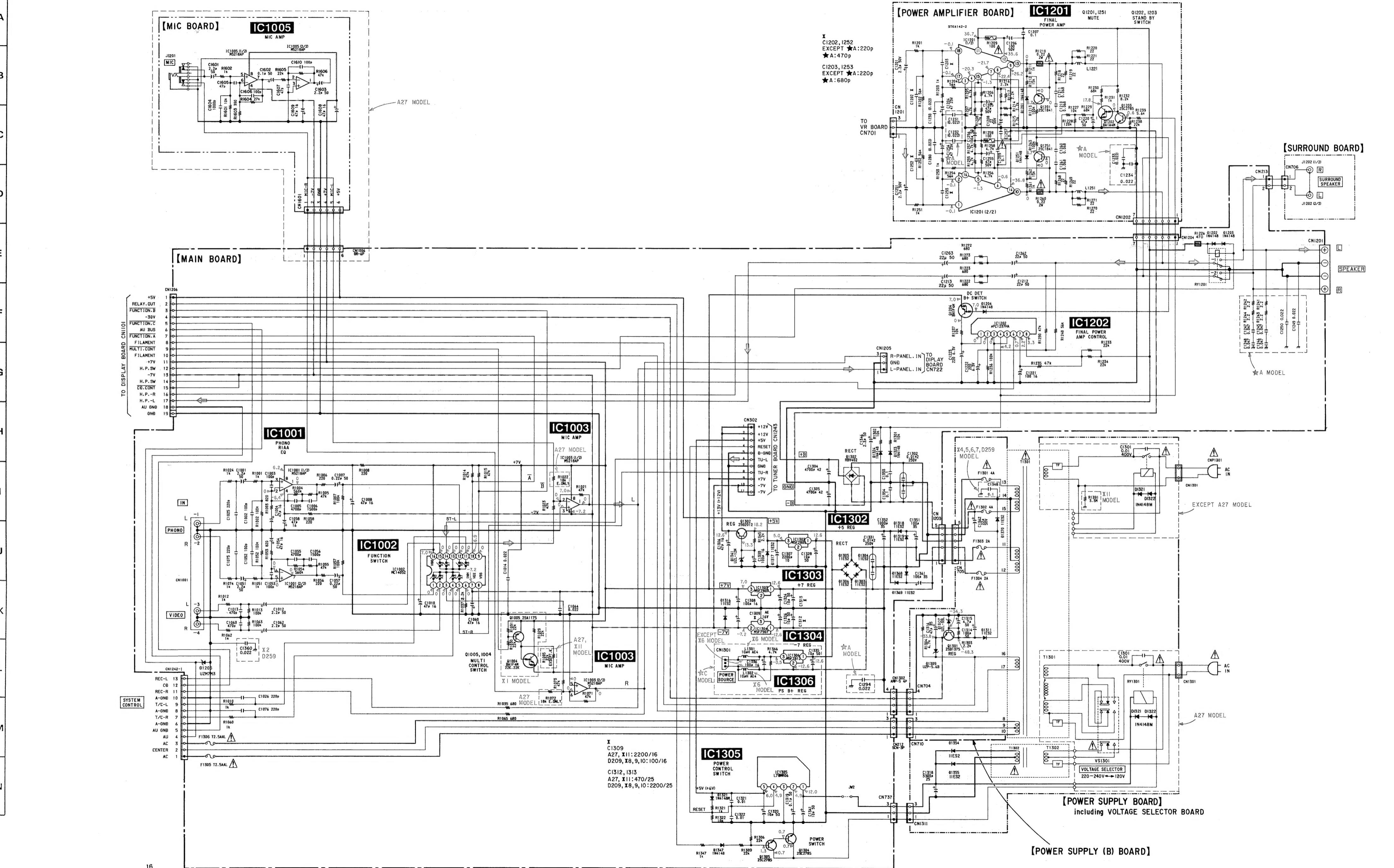
J2 : AUS (with in PHONO MODEL)
E2 : AEP (with in PHONO MODEL)

PRINTED WIRING BOARD — MAIN SECTION —



- 3. SCHEMATIC DIAGRAM — MAIN SECTION —

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27



Note on Schematic Diagram :

- All capacitors are in μF unless otherwise noted. pF: μpF
50WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $\frac{1}{4}$ W or less unless otherwise specified.
 -  : nonflammable resistor.
 -  : fusible resistor.

<p>Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.</p>	<p>Note: Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
--	--

- : adjustment for repair.
 - : B + Line.
 - : B - Line.
 - no mark : FM
 - Voltages are taken with a VOM (input impedance 10 MΩ).
Voltage variations may be noted due to normal production tolerances.
 - Signal path.
 : FM

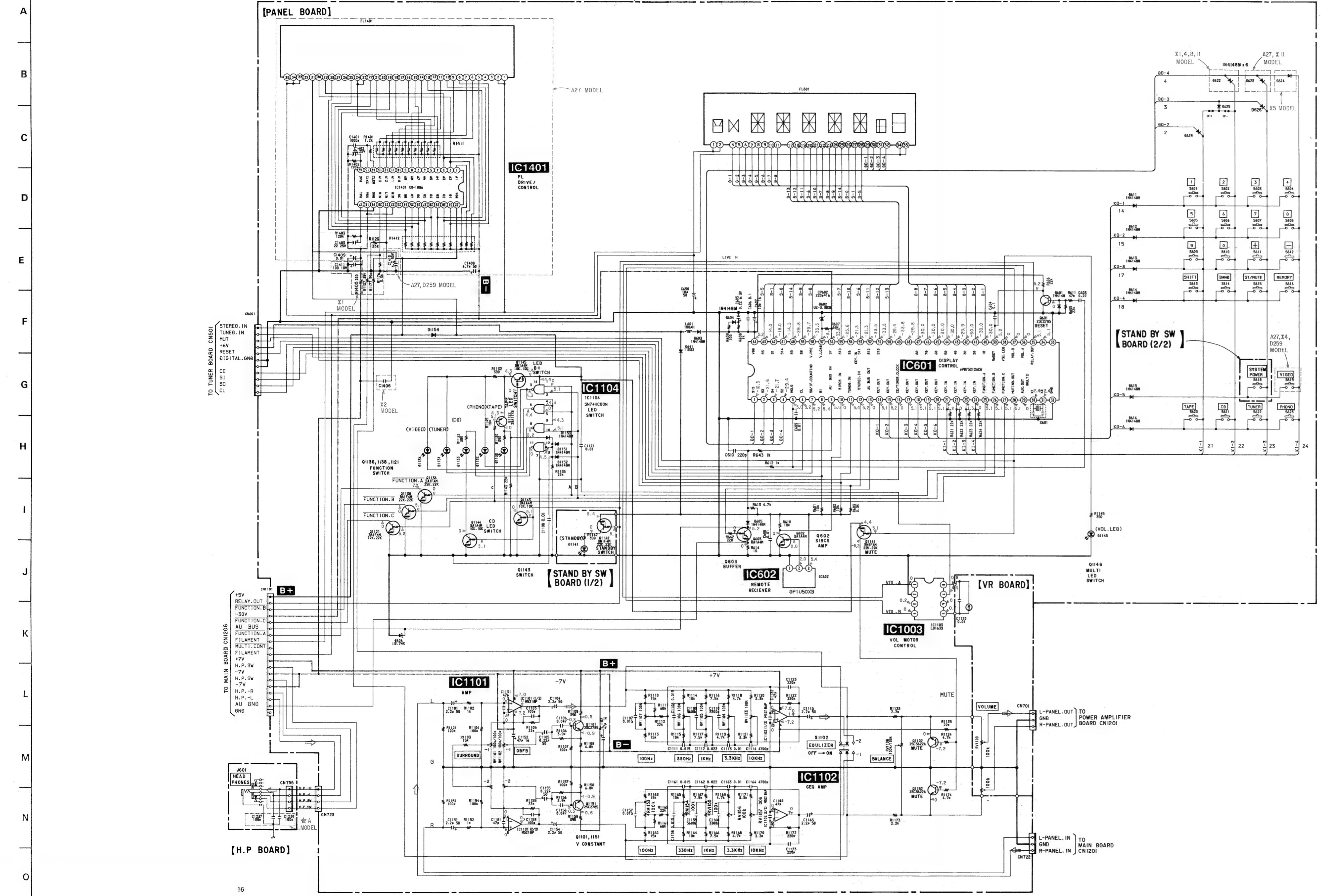
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 - * 2 : A27 : E, AU2
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 - * 4 : D209 : Italian
 - * 5 : D209 : East European
 - * 6 : D209 : German
 - * 7 : D209 : AEP, AE2
 - * 8 : D259 : Italian
 - * 9 : D259 : AEP, AE2
 - * 10 : D259 : UK
 - * 11 : D259 : Canadian
 - ★ A : * 4, 6, 8
 - ★ B : * 3, 5, 7, 9, 10
 - ★ C : 209 : AEP, * 3, 6, D259 : AEP, * 10

AU2 : AUS (with in PHONO MODEL)
AE2 : AEP (with in PHONO MODEL)

4-4. SCHEMATIC DIAGRAM —DISPLAY SECTION—

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27



Note on Schematic Diagram :

- All capacitors are in μF unless otherwise noted. pF: μF 50V or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/2 \text{ W}$ or less unless otherwise specified.
- (W) : nonflammable resistor.
- (WV) : fusible resistor.

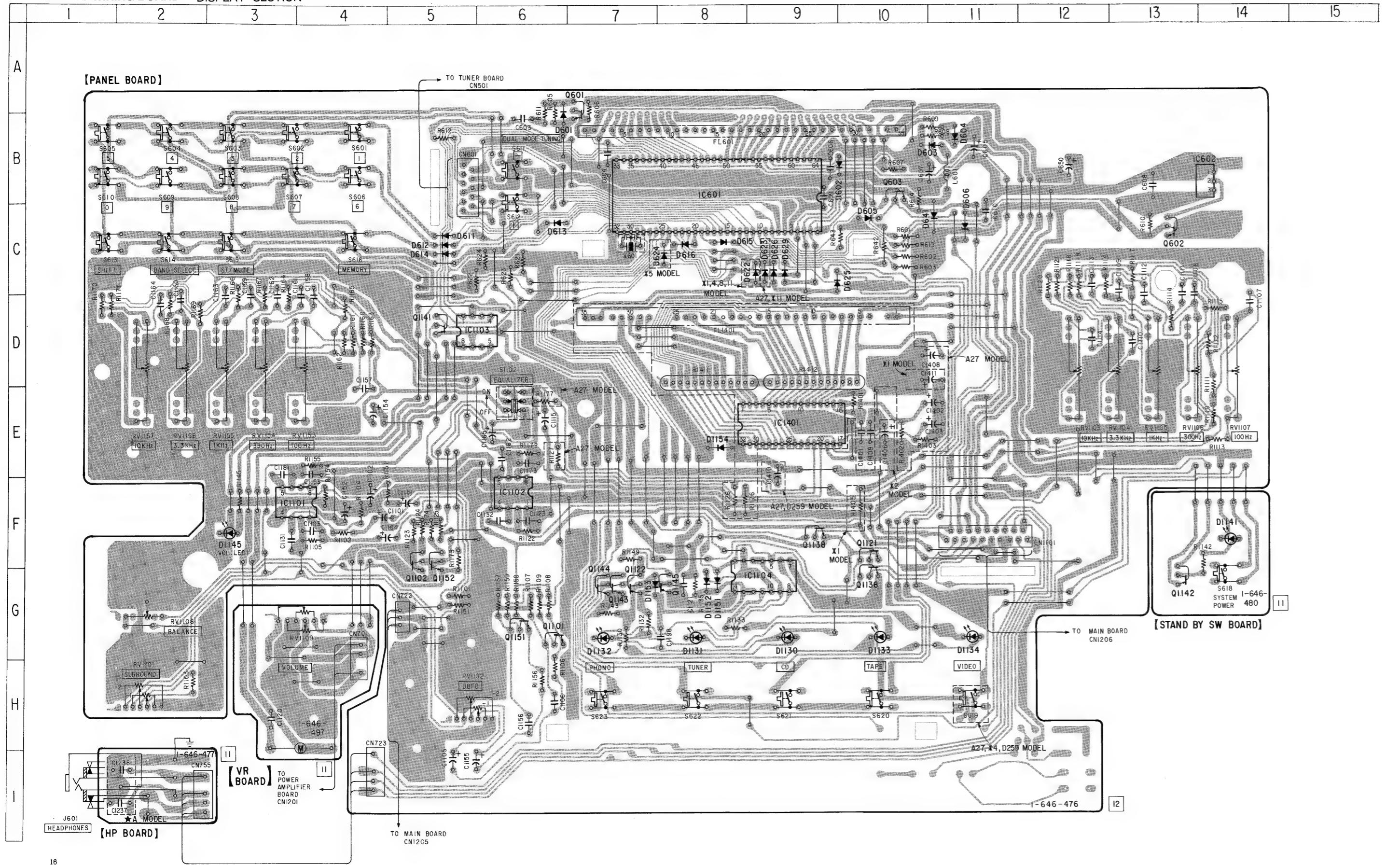
Note:
The components identified by mark Δ are critical for safety.
No les remplacer que par une pièce portant le numéro spécifié.

- \square : adjustment for repair.
- \circ : $\text{B}+$ Line.
- \circ : $\text{B}-$ Line.
- no mark : FM
- Voltages are taken with a VOM (input impedance 10 MO). Voltage variations may be noted due to normal production tolerances.
- Signal path:
 \Rightarrow : FM
 \Rightarrow : AM

- Model name and destination shown by *1 to *11.
- *1 : A27 : Australian
- *2 : A27 : E, AU2
- *3 : D209 : UK
- *4 : D209 : Italian
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- *8 : D259 : Italian
- *9 : D259 : AEP, AE2
- *10 : D259 : UK
- *11 : D259 : Canadian
- *A : *4, 6, 8
- *B : *3, 5, 7, 9, 10
- *C : 209 : AEP, *3, 6, D259 : AEP, *10

AU2 : AUS (with in PHONO MODEL)
AE2 : AEP (with in PHONO MODEL)

4-5. PRINTED WIRING BOARD — DISPLAY SECTION —



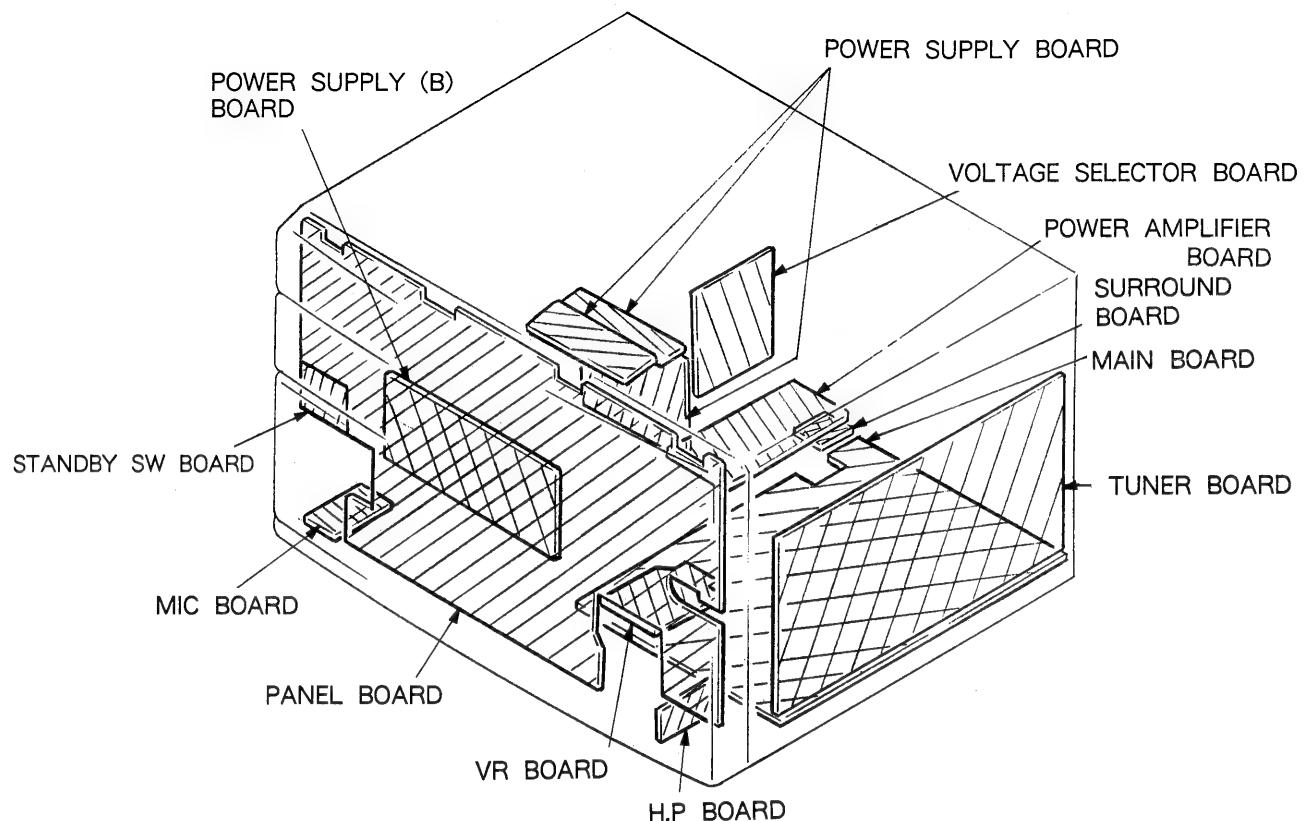
• Semiconductor Location			
Ref. No.	Location	Ref. No.	Location
D601	B-6	D1153	G-7
D602	B-9	D1154	E-8
D603	B-10		
D604	B-11	IC601	B-8
D605	C-10	IC602	B-13
D606	B-11	IC1101	F-3
D611	C-5	IC1102	F-6
D612	C-5	IC1103	D-5
D613	C-6	IC1104	G-8
D614	C-5	IC1401	E-9
D615	C-8		
D616	C-8	0601	A-6
D622	C-8	0602	C-13
D623	C-9	0603	B-10
D624	C-8	01101	G-6
D625	C-9	01102	G-5
D626	C-9	01121	F-10
D629	C-9	01122	F-7
D641	C-10	01136	G-10
D1130	G-9	01138	F-9
D1131	G-8	01141	D-5
D1132	G-7	01142	G-13
D1133	G-10	01143	G-7
D1134	G-11	01144	F-7
D1141	F-14	01145	G-8
D1145	F-3	01151	G-6
D1151	G-8	01152	G-5
D1152	G-8		

Note on Mounting Diagram :

- —— : Parts extracted from the component side.
 - ■ ■ ■ ■ : Pattern on the side which is seen.
 - Model name and destination shown by * 1 to * 11.
 - * 1 : A27 : Australian
 - * 2 : A27 : E, AU2
 - * 3 : D209 : UK
 - * 4 : D209 : Italian
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 - * 6 : D209 : German
 - * 7 : D209 : AEP, AE2
 - * 8 : D259 : Italian
 - * 9 : D259 : AEP, AE2
 - * 10 : D259 : UK
 - * 11 : D259 : Canadian
 - ★ A : * 4, 6, 8
 - ★ B : * 3, 5, 7, 9, 10
 - ★ C : 209 : AEP, * 3, 6, D259 : AEP, * 10

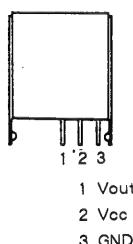
AU2 : AUS (with in PHONO MODEL)
AE2 : AEP (with in PHONO MODEL)

4-6. CIRCUIT BOARDS LOCATION

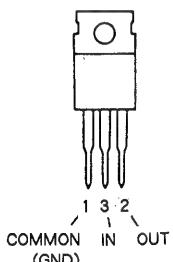


4-7. SEMICONDUCTOR LEAD LAYOUTS

GP1U50XB



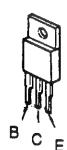
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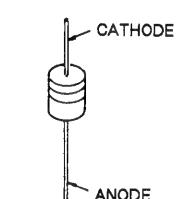
DTA114ES
DTC114ES
DTC124ES
2SC2603-EF
2SC2669-0Y
2SC3622A-LK



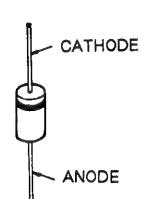
2SA473
2SD2012



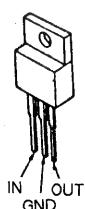
HZS7B3L
UZL-12M3
UZL-33L
UZL-5.8B
UZ-3.9BSB
11ES2



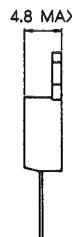
1N4148M



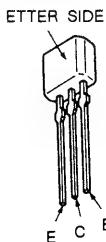
M5F7805
M5F7807L
M5F7812L



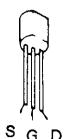
L78MR06



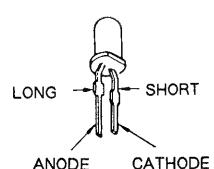
DTA124ES
2SA1175-HFE
2SC2785-HFE



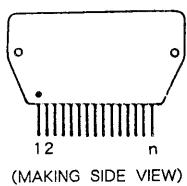
2SK246-GR3



SEL2210S-CD
SEL3210S-CD



STK-4142MK2

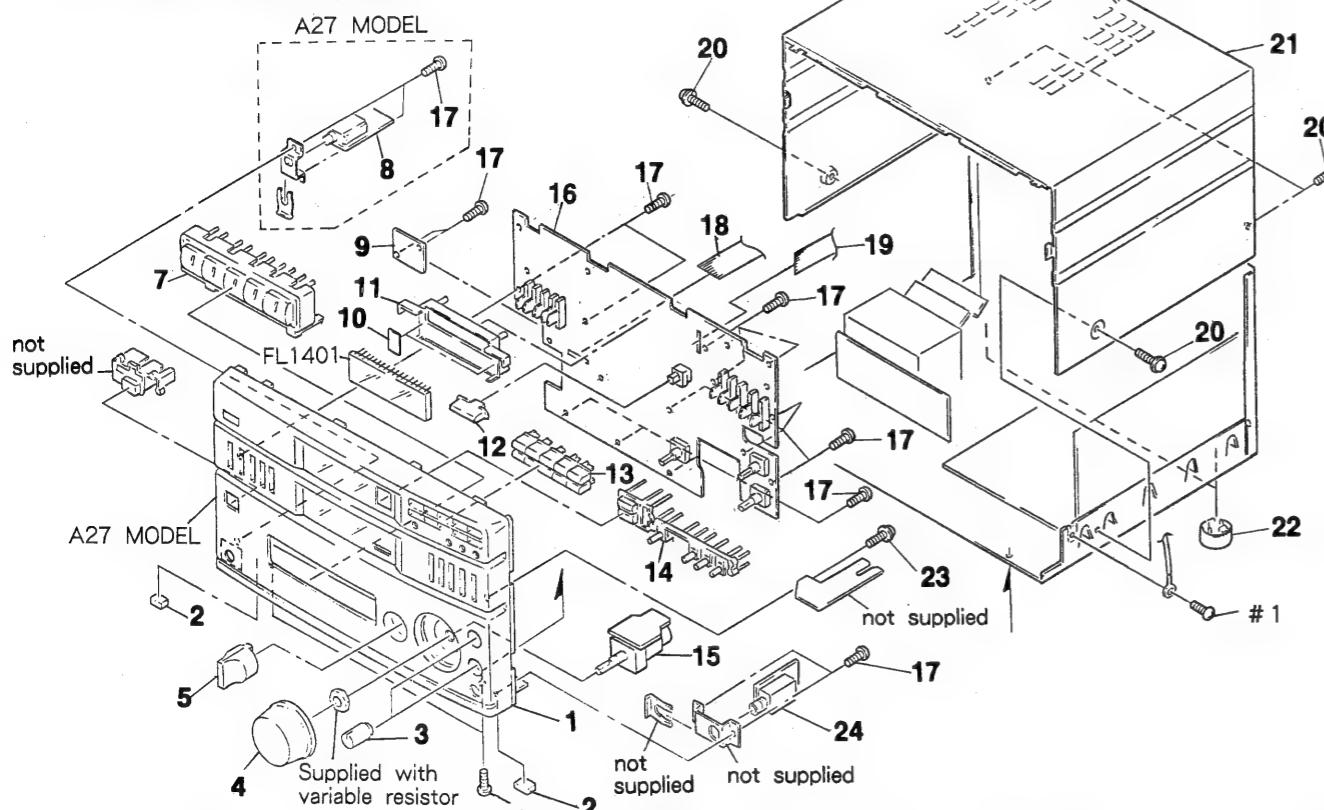


SECTION 5 EXPLODED VIEWS

NOTE:

- - XX, - X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts Example : KNOB, BALANCE (WHITE)...(RED)
 ↑ ↑
 Parts color Cabinet's color

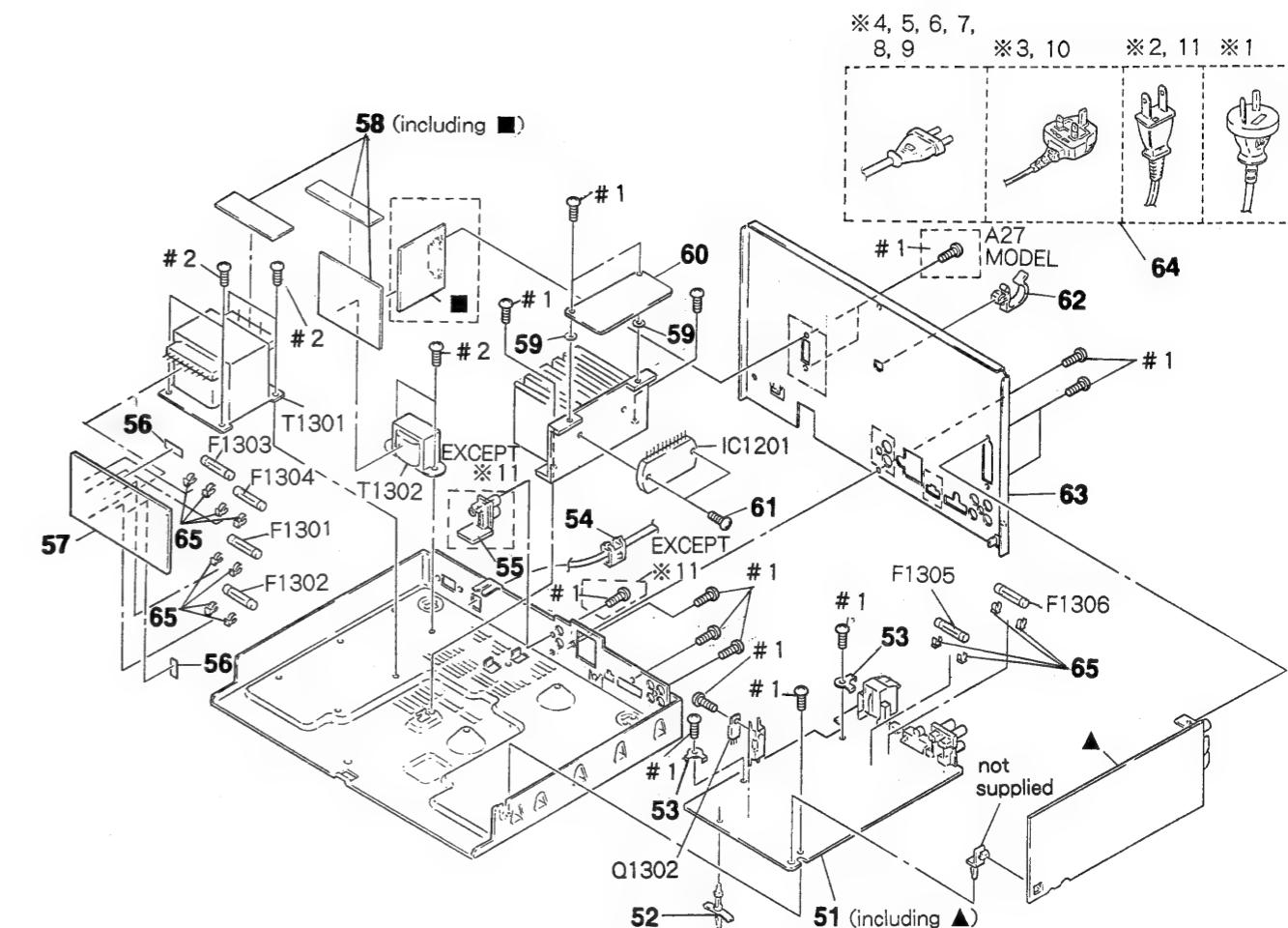
5-1. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	X-4943-180-1	PANEL ASSY, FRONT (*1)		* 16	A-4356-736-A	PANEL BOARD, COMPLETE (*2)	
1	X-4943-182-1	PANEL ASSY, FRONT (D209)		* 16	A-4356-623-A	PANEL BOARD, COMPLETE (*3)	
1	X-4943-242-2	PANEL ASSY, FRONT (*2)		* 16	A-4356-930-A	PANEL BOARD, COMPLETE (*4)	
1	X-4943-243-2	PANEL ASSY, FRONT (D259)		* 16	A-4360-822-A	PANEL BOARD, COMPLETE (*5)	
2	4-948-236-01	CUSHION (107)		* 16	A-4356-924-A	PANEL BOARD, COMPLETE (*6)	
3	4-955-744-01	KNOB (BA) (*1, D209)		* 16	A-4356-608-A	PANEL BOARD, COMPLETE (*7)	
3	4-955-744-21	KNOB (BA) (*2, D259)		* 16	A-4360-541-A	PANEL BOARD, COMPLETE (*8)	
4	4-955-635-01	KNOB (V) (*1, D209)		* 16	A-4360-531-A	PANEL BOARD, COMPLETE (*9)	
4	4-955-635-21	KNOB (V) (*2, D259)		* 16	A-4360-520-A	PANEL BOARD, COMPLETE (*10)	
5	4-955-636-01	KNOB (DB) (*1, D209)		* 16	A-4360-509-A	PANEL BOARD, COMPLETE (*11)	
5	4-955-636-22	KNOB (DB) (*2, D259)		17	4-951-620-01	SCREW (2.6X8), +BVTP	
7	X-4943-179-1	BUTTON (FU) ASSY		18	1-590-578-11	WIRE, FLAT TYPE (19 CORE)	
* 8	1-646-479-11	MIC BOARD (A27)		19	1-590-576-11	WIRE, FLAT TYPE (11 CORE) (A27, D259)	
* 9	1-646-480-11	STAND-BY SW BOARD		19	1-590-576-21	WIRE, FLAT TYPE (11 CORE) (D209)	
* 10	4-949-935-31	CUSHION (FL)		20	3-704-356-01	SCREW (CASE) (M3X8)	
* 11	4-942-301-01	HOLDER, FL TUBE		* 21	4-955-759-11	CASE (*1, D209)	
12	4-955-755-01	BUTTON (EQ) (*1, D209)		* 21	4-955-759-51	CASE (*2, D259)	
12	4-955-755-11	BUTTON (EQ) (*2, D259)		22	4-933-601-01	FOOT (*2, D259)	
13	4-955-741-01	BUTTON (PR) (*1, D209)		22	X-4941-228-1	FOOT ASSY (*1, D209)	
13	4-955-741-21	BUTTON (PR) (*2, D259)		23	4-957-577-01	SCREW PTP WH (2.6X8) (DIA. 10) (*1, D209)	
14	4-955-745-01	BUTTON (ST)		23	4-957-577-11	SCREW PTP WH (2.6X8) (DIA. 10) (*2, D259)	
* 15	1-646-497-11	VR BOARD		* 24	1-646-477-11	H. P BOARD	
* 16	A-4356-640-A	PANEL BOARD, COMPLETE (*1)		FL1401	1-519-648-21	INDUCTOR TUBE, FLUORENSCENT (A27)	

5-2. BACK PANEL SECTION

▲ : TUNER BOARD
 ■ : VOLTAGE SELECTOR
 BOARD



• CAUTION

Be sure to use insulation sheet (△4-959-364-01) when replacing power transformer because it is safely related part.

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>
* 51	A-4356-650-A	MAIN BOARD, COMPLETE (*1)		* 63	4-955-778-91	PANEL, BACK (*6)	
* 51	A-4356-742-A	MAIN BOARD, COMPLETE (*2)		* 63	4-955-778-11	PANEL, BACK (D209:AEP)	
* 51	A-4356-630-A	MAIN BOARD, COMPLETE (*3)		* 63	4-955-778-81	PANEL, BACK (D209:AE2)	
* 51	A-4356-933-A	MAIN BOARD, COMPLETE (*4)		* 63	4-955-824-31	PANEL, BACK (*8)	
* 51	A-4360-821-A	MAIN BOARD, COMPLETE (*5)		* 63	4-955-824-11	PANEL, BACK (D259:AEP)	
* 51	A-4356-926-A	MAIN BOARD, COMPLETE (*6)		* 63	4-955-824-81	PANEL, BACK (D259:AE2)	
* 51	A-4356-618-A	MAIN BOARD, COMPLETE (D209:AEP)		* 63	4-955-824-21	PANEL, BACK (*10)	
* 51	A-4356-928-A	MAIN BOARD, COMPLETE (D209:AE2)		* 63	4-955-824-51	PANEL, BACK (*11)	
* 51	A-4360-543-A	MAIN BOARD, COMPLETE (*8)		△64	1-696-848-21	CORD, POWER (*1)	
* 51	A-4360-534-A	MAIN BOARD, COMPLETE (D259:AEP)		△64	1-690-608-11	CORD, POWER (A27:AU2)	
* 51	A-4360-538-A	MAIN BOARD, COMPLETE (D259:AE2)		△64	1-575-653-11	CORD, POWER (A27:E)	
* 51	A-4360-523-A	MAIN BOARD, COMPLETE (*10)		△64	1-696-570-21	CORD, POWER (*3, 10)	
* 51	A-4360-511-A	MAIN BOARD, COMPLETE (*11)		△64	1-575-651-11	CORD, POWER (*4, 5, 6, 7, 8, 9)	
* 52	4-954-051-51	HOLDER, PC BOARD		△64	1-690-609-21	CORD, POWER (*11)	
* 53	4-942-204-01	PLATE, GROUND		65	1-533-217-31	HOLDER, FUSE (*1, D209)	
* 54	3-703-244-00	BUSHING (2104), CORD (EXCEPT A27:E)		* 65	1-533-213-11	HOLDER, FUSE (*2, D259)	
* 54	3-703-571-11	BUSHING (S) (4516), CORD (A27:E)		△F1301	1-532-350-00	FUSE 4A (A27, D209, *9, 10)	
* 55	1-646-484-11	SURROUND BOARD (EXCEPT *11)		△F1301	1-576-108-11	FUSE 4A (*8, 11)	
* 56	3-701-946-26	LABEL (4A125V), FUSE (*11)		△F1302	1-532-350-00	FUSE 4A (A27, D209, *9, 10)	
* 57	1-646-478-11	POWER SUPPLY (B) BOARD		△F1302	1-576-108-11	FUSE 4A (*8, 11)	
* 58	1-646-474-11	POWER SUPPLY BOARD		△F1303	1-532-203-00	FUSE 2A (D209, *9, 10)	
59	3-330-034-01	WASHER (*2, D259)		△F1303	1-532-286-00	FUSE 2. 5A (A27, D209, *9, 10)	
59	3-564-542-00	WASHER, FIBER (D209)		△F1303	1-576-104-11	FUSE 2A (*8)	
* 60	A-4356-649-A	POWER AMPLIFIER BOARD, COMPLETE (*1)		△F1304	1-532-203-00	FUSE 2A (D209, *9, 10)	
* 60	A-4356-749-A	POWER AMPLIFIER BOARD, COMPLETE (*2)		△F1304	1-532-286-00	FUSE 2. 5A (A27, D209, *9, 10)	
* 60	A-4356-628-A	POWER AMPLIFIER BOARD, COMPLETE (*3)		△F1304	1-576-104-11	FUSE 2A (*8)	
* 60	A-4356-935-A	POWER AMPLIFIER BOARD, COMPLETE (*4, 6)		△F1305	1-532-286-00	FUSE 2. 5A (A27, D209, *9, 10)	
* 60	A-4356-616-A	POWER AMPLIFIER BOARD, COMPLETE (*5, 7)		△F1305	1-576-105-11	FUSE 2. 5A (*8, 11)	
* 60	A-4360-546-A	POWER AMPLIFIER BOARD, COMPLETE (*8)		△F1306	1-532-286-00	FUSE 2. 5A (A27, D209, *9, 10)	
* 60	A-4360-537-A	POWER AMPLIFIER BOARD, COMPLETE (*9)		△F1306	1-576-105-11	FUSE 2. 5A (*8, 11)	
* 60	A-4360-527-A	POWER AMPLIFIER BOARD, COMPLETE (*10)		IC1201	8-749-900-24	IC STK-4162MK2 (A27, *11)	
* 60	A-4360-516-A	POWER AMPLIFIER BOARD, COMPLETE (*11)		IC1201	8-749-900-96	IC STK-4162MK2 (D209, *8, 9, 10)	
61	4-928-635-11	SCREW, +BV (2. 6X16) TAPPING		Q1302	8-729-209-15	TRANSISTOR 2SD2012	
* 62	4-949-235-01	HOOK (*2, 4, 5, 6, 7, 9, 11)		△T1301	1-423-438-11	TRANSFORMER, POWER (*1)	
* 63	4-955-781-11	PANEL, BACK (*1)		△T1301	1-423-438-21	TRANSFORMER, POWER (*2)	
* 63	4-955-824-91	PANEL, BACK (A27:E)		△T1301	1-423-437-11	TRANSFORMER, POWER (D209)	
* 63	4-955-824-61	PANEL, BACK (A27:AU2)		△T1301	1-423-437-21	TRANSFORMER, POWER (*8, 9, 10)	
* 63	4-955-778-21	PANEL, BACK (*3)		△T1301	1-423-431-11	TRANSFORMER, POWER (*11)	
* 63	4-955-778-31	PANEL, BACK (*4)		△T1302	1-449-723-31	TRANSFORMER, POWER (EXCEPT *11)	
* 63	4-955-778-41	PANEL, BACK (*5)		△T1302	1-450-786-11	TRANSFORMER, POWER (*11)	

Note:
The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

SECTION 6

ELECTRICAL PARTS LIST

- Model name and destination shown by * 1 to * 11.
- * 1 : A27 : Australian
- * 2 : A27 : E, AU2
- * 3 : D209 : UK
- * 4 : D209 : Italian
- * 5 : D209 : East European
- * 6 : D209 : German
- * 7 : D209 : AEP, AE2
- * 8 : D259 : Italian
- * 9 : D259 : AEP, AE2
- * 10 : D259 : UK
- * 11 : D259 : Canadian
- ★ A : * 4, 6, 8
- ★ B : * 3, 5, 7, 9, 10
- ★ C : 209 : AEP, * 3, 6, D259 : AEP, * 10

AU2 : AUS (with in PHONO MODEL)
AE2 : AEP (with in PHONO MODEL)

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- - XX, - X mean standardized parts, so they may have some difference from the original one.
- **RESISTORS**
All resistors are in ohms.
METAL : metal-film resistor
METAL OXIDE : Metal Oxide-film resistor
F : nonflammable
- **SEMICONDUCTORS**
In each case, u : μ , for example :
uA... : μ A..., uPA... , μ PA... ,
uPB... , μ PB... , uPC... , μ PC... ,
 μ PD... , μ PD...
- **CAPACITORS :**
uF : μ F
- **COILS**
uH : μ H

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
*	A-4356-650-A	MAIN BOARD, COMPLETE (*1)	*****	C301	1-161-379-00	CERAMIC	0.01uF 20% 25V (★:A)
*	A-4356-742-A	MAIN BOARD, COMPLETE (*2)	*****	C302	1-124-477-11	ELECT	47uF 20% 25V
*	A-4356-630-A	MAIN BOARD, COMPLETE (*3)	*****	C303	1-161-379-00	CERAMIC	0.01uF 20% 25V
*	A-4356-933-A	MAIN BOARD, COMPLETE (*4)	*****	C305	1-161-379-00	CERAMIC	0.01uF 20% 25V (★:A)
*	A-4360-821-A	MAIN BOARD, COMPLETE (*5)	*****	C306	1-161-379-00	CERAMIC	0.01uF 20% 25V (★:A)
*	A-4356-926-A	MAIN BOARD, COMPLETE (*6)	*****	C307	1-161-379-00	CERAMIC	0.01uF 20% 25V (EXCEPT *1)
*	A-4356-618-A	MAIN BOARD, COMPLETE (D209:AEP)	*****	C308	1-161-379-00	CERAMIC	0.01uF 20% 25V (EXCEPT *1)
*	A-4356-928-A	MAIN BOARD, COMPLETE (D209:AE2)	*****	C309	1-161-379-00	CERAMIC	0.01uF 20% 25V
*	A-4360-543-A	MAIN BOARD, COMPLETE (*8)	*****	C310	1-124-477-11	ELECT	47uF 20% 25V
*	A-4360-534-A	MAIN BOARD, COMPLETE (D259:AEP)	*****	C311	1-161-379-00	CERAMIC	0.01uF 20% 25V
*	A-4360-538-A	MAIN BOARD, COMPLETE (D259:AE2)	*****	C312	1-101-006-00	CERAMIC	0.047uF 50V
*	A-4360-523-A	MAIN BOARD, COMPLETE (*10)	*****	C313	1-123-382-00	ELECT	3.3uF 20% 100V
*	A-4360-511-A	MAIN BOARD, COMPLETE (*11)	*****	C314	1-161-379-00	CERAMIC	0.01uF 20% 25V
*	1-646-484-11	SURROUND BOARD (EXCEPT *11)	*****	C315	1-161-329-00	CERAMIC	0.0068uF 30% 16V
*	1-533-213-11	HOLDER, FUSE (*2, D259)	*****	C316	1-162-282-31	CERAMIC	100PF 10% 50V
*	1-533-213-31	HOLDER, FUSE (*2, D259)	*****	C317	1-162-292-31	CERAMIC	680PF 10% 50V (*4, 6)
*	1-533-217-31	HOLDER, FUSE (*1, D209)	*****	C317	1-162-289-31	CERAMIC	390PF 10% 50V (*8)
*	1-533-293-11	FUSE HOLDER (*2, D259)	*****	C318	1-124-903-11	ELECT	1uF 20% 50V
*	4-942-204-01	PLATE, GROUND	*****	C320	1-124-903-11	ELECT	1uF 20% 50V
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S (*6)		C321	1-124-902-00	ELECT	0.47uF 20% 50V
				C322	1-124-463-00	ELECT	0.1uF 20% 50V
				C323	1-161-329-00	CERAMIC	0.0068uF 20% 16V (EXCEPT *11)
				C323	1-161-379-00	CERAMIC	0.01uF 20% 25V (*11)
				C324	1-161-329-00	CERAMIC	0.0068uF 20% 16V (EXCEPT *11)
				C324	1-161-379-00	CERAMIC	0.01uF 20% 25V (*11)
				C325	1-124-477-11	ELECT	47uF 20% 25V
				C326	1-124-907-11	ELECT	10uF 20% 50V
				C327	1-161-379-00	CERAMIC	0.01uF 20% 25V
				C328	1-124-463-00	ELECT	0.1uF 20% 50V

Note:
The components identified by mark or dotted line with mark are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

MAIN	SURROUND
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Ref. No.	Part No.	Description	Remarks		Ref. No.	Part No.	Description	Remarks		
C329	1-124-927-11	ELECT	4. 7uF	20%	100V	C1013	1-162-290-31	CERAMIC	470PF	10% 50V
C330	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1014	1-161-494-00	CERAMIC	0.022uF	25V
C331	1-126-176-11	ELECT	220uF	20%	10V	C1025	1-162-286-31	CERAMIC	220PF	10% 50V
C332	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1026	1-162-286-31	CERAMIC	220PF	10% 50V
C335	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1051	1-124-925-11	ELECT	2. 2uF	20% 100V
C336	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1052	1-162-282-31	CERAMIC	100PF	10% 50V
C339	1-162-210-31	CERAMIC	30PF	5%	50V (★:B)	C1053	1-162-282-31	CERAMIC	100PF	10% 50V
C341	1-123-382-00	ELECT	3. 3uF	20%	100V	C1054	1-124-477-11	ELECT	47uF	20% 25V
C342	1-123-382-00	ELECT	3. 3uF	20%	100V	C1055	1-161-377-00	CERAMIC	0.0047uF	20% 16V
C343	1-123-382-00	ELECT	3. 3uF	20%	100V	C1056	1-161-374-11	CERAMIC	0.0015uF	20% 50V
C344	1-123-382-00	ELECT	3. 3uF	20%	100V	C1057	1-124-464-11	ELECT	0.22uF	20% 50V
C345	1-161-375-00	CERAMIC	0.0022uF	20%	50V	C1058	1-124-477-11	ELECT	47uF	20% 25V
C346	1-161-375-00	CERAMIC	0.0022uF	20%	50V	C1060	1-124-477-11	ELECT	47uF	20% 25V
C351	1-161-494-00	CERAMIC	0.022uF	25V (★:B)		C1062	1-124-925-11	ELECT	2. 2uF	20% 100V
C352	1-102-120-00	CERAMIC	0.0018uF	10%	50V (★:B)	C1063	1-162-290-31	CERAMIC	470PF	10% 50V
C353	1-161-374-11	CERAMIC	0.0015uF	20%	50V (★:B)	C1064	1-161-494-00	CERAMIC	0.022uF	25V
C354	1-161-494-00	CERAMIC	0.022uF	25V (★:B)		C1075	1-162-286-31	CERAMIC	220PF	10% 50V
C361	1-164-098-11	CERAMIC	0.047uF		12V	C1076	1-162-286-31	CERAMIC	220PF	10% 50V
C361	1-161-379-00	CERAMIC	0.01uF	20%	25V (*4, 6)	C1212	1-124-916-11	ELECT	22uF	20% 63V
C362	1-161-494-00	CERAMIC	0.022uF		25V	C1213	1-124-916-11	ELECT	22uF	20% 63V
C363	1-164-159-11	CERAMIC	0.1uF		50V (★:B)	C1221	1-126-101-11	ELECT	100uF	20% 16V
C364	1-161-494-00	CERAMIC	0.022uF		25V (★:B)	C1222	1-126-176-11	ELECT	220uF	20% 10V
C371	1-162-198-31	CERAMIC	8. 2PF	10%	50V	C1223	1-126-176-11	ELECT	220uF	20% 10V
				(EXCEPT ★:B)		C1245	1-101-006-00	CERAMIC	0.047uF	50V (★:A)
C371	1-162-196-31	CERAMIC	5. 6PF	10%	50V (★:B)	C1246	1-101-006-00	CERAMIC	0.047uF	50V (★:A)
C373	1-162-288-31	CERAMIC	330PF	10%	50V (*7, *8)	C1247	1-101-006-00	CERAMIC	0.047uF	50V (★:A)
C501	1-102-961-00	CERAMIC	27PF	5%	50V	C1248	1-101-006-00	CERAMIC	0.047uF	50V (★:A)
C502	1-102-961-00	CERAMIC	27PF	5%	50V	C1249	1-161-494-00	CERAMIC	0.022uF	25V (★:A)
C503	1-124-477-11	ELECT	47uF	20%	25V	C1250	1-161-494-00	CERAMIC	0.022uF	25V (★:A)
C504	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1262	1-124-916-11	ELECT	22uF	20% 63V
C505	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1263	1-124-916-11	ELECT	22uF	20% 63V
C506	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1294	1-161-494-00	CERAMIC	0.022uF	25V (★:A)
C507	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1302	1-102-394-11	CERAMIC	0.01uF	250V
C521	1-124-925-11	ELECT	2. 2uF	20%	100V	C1304	1-126-224-11	ELECT	4700uF	20% 42V
C522	1-124-463-00	ELECT	0.1uF	20%	50V	C1305	1-126-224-11	ELECT	4700uF	20% 42V
C523	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1306	1-124-477-11	ELECT	47uF	20% 25V
C524	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1307	1-124-893-11	ELECT	2200uF	20% 10V
C525	1-124-477-11	ELECT	47uF	20%	25V	C1308	1-126-101-11	ELECT	100uF	20% 16V
				(EXCEPT *5)		C1309	1-124-556-11	ELECT	2200uF	20% 16V
C525	1-126-101-11	ELECT	100uF	20%	16V (*5)					(A27, *11)
C531	1-136-173-00	FILM	0.47uF	5%	50V (★:B)	C1309	1-126-101-11	ELECT	100uF	20% 16V
C532	1-161-494-00	CERAMIC	0.022uF		25V (★:B)					(D209, *8, 9, 10)
C533	1-124-463-00	ELECT	0.1uF	20%	50V (★:B)	C1312	1-124-564-11	ELECT	4700uF	20% 25V
C1001	1-124-925-11	ELECT	2. 2uF	20%	100V	C1312	1-124-563-11	ELECT	2200uF	20% 25V
C1002	1-162-282-31	CERAMIC	100PF	10%	50V	C1312	1-124-563-11	ELECT	2200uF	20% 25V
C1003	1-162-282-31	CERAMIC	100PF	10%	50V	C1313	1-124-564-11	ELECT	4700uF	20% 25V
C1004	1-124-477-11	ELECT	47uF	20%	25V	C1313	1-124-563-11	ELECT	2200uF	20% 25V
C1005	1-161-377-00	CERAMIC	0.0047uF	20%	16V	C1319	1-124-463-00	ELECT	0.1uF	20% 50V
C1006	1-161-374-11	CERAMIC	0.0015uF	20%	50V	C1320	1-124-907-11	ELECT	10uF	20% 50V
C1007	1-124-464-11	ELECT	0.22uF	20%	50V	C1321	1-161-379-00	CERAMIC	0.01uF	20% 25V
C1008	1-124-477-11	ELECT	47uF	20%	25V					
C1010	1-124-477-11	ELECT	47uF	20%	25V					
C1012	1-124-925-11	ELECT	2. 2uF	20%	100V					

MAIN **SURROUND**

Ref. No.	Part No.	Description	Remarks				
C1322	1-161-379-00	CERAMIC	0.01uF	20%	25V		
C1324	1-124-907-11	ELECT	10uF	20%	50V		
C1326	1-124-907-11	ELECT	10uF	20%	50V		
C1328	1-124-907-11	ELECT	10uF	20%	50V		
C1330	1-126-101-11	ELECT	100uF	20%	16V		
C1331	1-102-394-11	CERAMIC	0.01uF		250V		
C1335	1-124-907-11	ELECT	10uF	20%	50V	(★:C)	
C1336	1-126-101-11	ELECT	100uF	20%	16V	(★:C)	
C1341	1-124-907-11	ELECT	10uF	20%	50V		
C1346	1-124-925-11	ELECT	2.2uF	20%	100V		
C1351	1-124-122-11	ELECT	100uF	20%	50V		
C1352	1-126-105-11	ELECT	1000uF	20%	35V		
C1353	1-136-165-00	FILM	0.1uF	5%	50V		
C1354	1-136-165-00	FILM	0.1uF	5%	50V		
C1360	1-161-494-00	CERAMIC	0.022uF		25V		(*2, D259)
C1361	1-124-122-11	ELECT	100uF	20%	50V		

< FILTER >

CF301	1-577-070-81	FILTER, CERAMIC (EXCEPT ★:A)
CF301	1-567-389-11	FILTER, CERAMIC (★:A)
CF303	1-577-070-81	FILTER, CERAMIC (EXCEPT ★:A)
CF303	1-567-389-11	FILTER, CERAMIC (★:A)
CF304	1-577-075-11	OSCILLATOR, CERAMIC

< CONNECTOR >

* CN212	1-564-506-11	PLUG, CONNECTOR 3P
CN302	1-695-089-11	PIN, CONNECTOR (PC BOARD) 11P
* CN501	1-568-830-11	SOCKET, CONNECTOR 11P
* CN1001	1-580-912-21	JACK, PIN 4P (IN) (*2, D259)
* CN1001	1-580-912-11	JACK, PIN 4P (IN) (*1, D209)
* CN1006	1-568-955-11	PIN, CONNECTOR 6P (A27)
CN1201	1-537-494-11	TERMINAL BOARD (SPEAKER) (EXCEPT *4, 8)
CN1201	1-537-481-11	TERMINAL BOARD (SPEAKER) (*4, 8)
* CN1203	1-564-508-11	PLUG, CONNECTOR 5P
CN1205	1-506-468-11	PIN, CONNECTOR 3P
CN1206	1-568-802-11	SOCKET, CONNECTOR 19P
* CN1241	1-565-291-11	SOCKET, CONNECTOR 13P (SYSTEM CONTROL)
CN1243	1-695-094-11	SOCKET, CONNECTOR 11P
CN1244	1-506-469-11	PIN, CONNECTOR 4P (A27, *9, 10, 11)
* CN1301	1-566-210-11	PIN, CONNECTOR 3P (POWER SOURCE) (★:C)
CN1302	1-506-469-11	PIN, CONNECTOR 4P

< DIODE >

D351	8-719-987-63	DIODE	IN4148M (★:B)
D1202	8-719-987-63	DIODE	IN4148M
D1203	8-719-987-63	DIODE	IN4148M
D1204	8-719-987-63	DIODE	IN4148M
D1205	8-719-933-48	DIODE	HZSTB3L
D1302	8-719-312-09	DIODE	RBA-402
D1303	8-719-200-82	DIODE	11ES2

Ref. No.	Part No.	Description	Remarks
D1304	8-719-200-82	DIODE	11ES2
D1305	8-719-200-82	DIODE	11ES2
D1306	8-719-200-82	DIODE	11ES2

D1316	8-719-200-82	DIODE	11ES2
D1317	8-719-200-82	DIODE	11ES2
D1318	8-719-200-82	DIODE	11ES2
D1319	8-719-200-82	DIODE	11ES2
D1321	8-719-987-63	DIODE	IN4148M

D1323	8-719-987-63	DIODE	IN4148M
D1324	8-719-987-63	DIODE	IN4148M
D1341	8-719-001-76	DIODE	UZL-12M3
D1347	8-719-987-63	DIODE	IN4148M
D1368	8-719-200-82	DIODE	11ES2

< FRONTEND >

FE301	1-465-006-11	FRONT END (FM) (2 GANG)	(*2, 3)
FE301	1-693-090-21	FRONT END (FM) (2 GANG)	(*1, 7, 9, 10, 11)
FE301	1-463-857-21	FRONT END	(★:A)
FE301	1-465-396-11	FRONT END (FM 3GANG)	(*5)
FE351	1-236-463-11	ENCAPSULATED COMPONENT	(★:B)
FE352	1-239-260-11	ENCAPSULATED COMPONENT	(EXCEPT ★:B)
FE352	1-239-261-12	ENCAPSULATED COMPONENT	(★:B)

< IC >

IC301	8-759-821-45	IC	LA1851N
IC501	8-759-820-91	IC	LC7218
IC1001	8-759-634-51	IC	M5218AP
IC1002	8-759-000-48	IC	MC14052BCP
IC1003	8-759-634-51	IC	M5218AP
IC1202	8-759-111-68	IC	uPC1237HA
IC1302	8-759-231-53	IC	M5F7805
IC1303	8-759-071-48	IC	M5F7807L
IC1304	8-759-604-95	IC	M5F79M07
IC1305	8-759-820-13	IC	L78MR06
IC1306	8-759-231-58	IC	M5F7812L (★:C)

< JACK >

* J1202	1-569-130-11	JACK, PIN 2P (SURROUND SPEAKER)	
			(EXCEPT *11)

< IFT >

IFT301	1-404-713-11	TRANSFORMER, IF	

< COIL >

L301	1-410-686-11	INDUCTOR	1mH (A27, *11)
L301	1-407-500-00	INDUCTOR	4.7mH (D209, *8, 9, 10)
L351	1-410-525-11	INDUCTOR	220uH (★:B)
L1301	1-408-117-00	INDUCTOR	10uH (*6)
L1302	1-408-117-00	INDUCTOR	10uH (*6)

MAIN	SURROUND
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Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
< FILTER >							
LPF301	1-235-164-00	FILTER, LOW PASS		R307	1-249-414-11	CARBON	560 5% 1/4W F (★:A)
LPF302	1-235-164-00	FILTER, LOW PASS		R308	1-249-411-11	CARBON	330 5% 1/4W
< TRANSISTOR >							
Q301	8-729-230-99	TRANSISTOR	2SC2669-OY (★:A)	R309	1-249-432-11	CARBON	18K 5% 1/4W (EXCEPT *1)
Q302	8-729-230-99	TRANSISTOR	2SC2669-OY (★:A)	R310	1-249-411-11	CARBON	330 5% 1/4W
Q303	8-729-230-99	TRANSISTOR	2SC2669-OY (EXCEPT *1)	R311	1-249-434-11	CARBON	27K 5% 1/4W (EXCEPT *1)
Q304	8-729-230-99	TRANSISTOR	2SC2669-OY	R311	1-247-891-00	CARBON	330K 5% 1/4W (*1)
Q305	8-729-900-80	TRANSISTOR	DTC114ES	R312	1-249-414-11	CARBON	560 5% 1/4W F (*2, 3, 5, 7, 9, 11)
Q306	8-729-900-61	TRANSISTOR	DTA114ES	R312	1-249-416-11	CARBON	820 5% 1/4W F (★:A)
Q307	8-729-900-80	TRANSISTOR	DTC114ES	R313	1-249-405-11	CARBON	100 5% 1/4W F
Q308	8-729-620-05	TRANSISTOR	2SC2603-EF (*2, D259)	R314	1-249-437-11	CARBON	47K 5% 1/4W (★:A)
Q308	8-729-119-78	TRANSISTOR	2SC2785-HFE (*1, D209)	R315	1-249-404-00	CARBON	82 5% 1/4W
Q309	8-729-620-05	TRANSISTOR	2SC2603-EF (*2, D259)	R315	1-249-435-11	CARBON	33K 5% 1/4W (★:A)
Q309	8-729-119-78	TRANSISTOR	2SC2785-HFE (*1, D209)	R316	1-249-429-11	CARBON	10K 5% 1/4W
Q351	8-729-900-80	TRANSISTOR	DTC114ES (★:B)	R317	1-249-417-11	CARBON	1K 5% 1/4W F
Q352	8-729-119-78	TRANSISTOR	2SC2785-HFE (*3, 5, 7)	R318	1-249-435-11	CARBON	33K 5% 1/4W
Q352	8-729-620-05	TRANSISTOR	2SC2603-EF (*9, 10)	R319	1-249-428-11	CARBON	8.2K 5% 1/4W F
Q353	8-729-119-76	TRANSISTOR	2SA1175-HFE (★:B)	R320	1-249-432-11	CARBON	18K 5% 1/4W
Q354	8-729-900-80	TRANSISTOR	DTC114ES (★:B)	R321	1-249-423-11	CARBON	3.3K 5% 1/4W F
Q355	8-729-900-80	TRANSISTOR	DTC114ES (★:B)	R322	1-249-429-11	CARBON	10K 5% 1/4W
Q356	8-729-900-80	TRANSISTOR	DTC114ES (★:B)	R323	1-249-418-11	CARBON	1.2K 5% 1/4W F (EXCEPT ★:A)
Q501	8-729-900-80	TRANSISTOR	DTC114ES	R323	1-249-423-11	CARBON	3.3K 5% 1/4W F (*4, 6)
Q502	8-729-900-61	TRANSISTOR	DTA114ES	R323	1-249-417-11	CARBON	1K 5% 1/4W F (*8)
Q521	8-729-202-67	TRANSISTOR	2SK246-GR3	R324	1-249-429-11	CARBON	10K 5% 1/4W
Q522	8-729-201-84	TRANSISTOR	2SC3112-B (A27, *11)	R325	1-249-429-11	CARBON	10K 5% 1/4W
Q522	8-729-141-26	TRANSISTOR	2SC3622A-LK (D209, *8, 9, 10)	R326	1-249-409-11	CARBON	220 5% 1/4W F
Q531	8-729-202-67	TRANSISTOR	2SK246-GR3 (★:B)	R327	1-249-437-11	CARBON	47K 5% 1/4W
Q532	8-729-141-26	TRANSISTOR	2SC3622A-LK (★:B)	R328	1-249-437-11	CARBON	47K 5% 1/4W
Q1004	8-729-900-36	TRANSISTOR	DTC124ES (*1)	R331	1-247-899-11	CARBON	680K 5% 1/4W
Q1005	8-729-119-76	TRANSISTOR	2SA1175-HFE (*1)	R332	1-247-899-11	CARBON	680K 5% 1/4W
Q1204	8-729-900-63	TRANSISTOR	DTA124ES	R333	1-249-421-11	CARBON	2.2K 5% 1/4W F
Q1302	8-729-209-15	TRANSISTOR	2SD2012	R334	1-249-421-11	CARBON	2.2K 5% 1/4W F
Q1304	8-729-620-05	TRANSISTOR	2SC2603-EF (*2, D259)	R335	1-249-420-11	CARBON	1.8K 5% 1/4W F
Q1304	8-729-119-78	TRANSISTOR	2SC2785-HFE (*1, D209)	R336	1-249-420-11	CARBON	1.8K 5% 1/4W F
Q1305	8-729-620-05	TRANSISTOR	2SC2603-EF (*2, D259)	R337	1-249-426-11	CARBON	5.6K 5% 1/4W
Q1305	8-729-119-78	TRANSISTOR	2SC2785-HFE (*1, D209)	R338	1-249-426-11	CARBON	5.6K 5% 1/4W
< RESISTOR >							
R301	1-249-401-11	CARBON	47 5% 1/4W F	R351	1-249-433-11	CARBON	22K 5% 1/4W (★:B)
R302	1-249-409-11	CARBON	220 5% 1/4W F (*1)	R352	1-249-437-11	CARBON	47K 5% 1/4W (★:B)
R302	1-249-413-11	CARBON	470 5% 1/4W F (*2, 3, 5)	R353	1-247-903-00	CARBON	1M 5% 1/4W (★:B)
R302	1-249-407-11	CARBON	150 5% 1/4W F (*7, 9, 10, 11)	R354	1-249-441-11	CARBON	100K 5% 1/4W (★:B)
R302	1-249-405-11	CARBON	100 5% 1/4W F (★:A)	R355	1-249-433-11	CARBON	22K 5% 1/4W (★:B)
R303	1-249-411-11	CARBON	330 5% 1/4W (★:A)	R356	1-249-421-11	CARBON	2.2K 5% 1/4W F (★:B)
R304	1-249-432-11	CARBON	18K 5% 1/4W (★:A)	R361	1-249-437-11	CARBON	47K 5% 1/4W
R305	1-249-411-11	CARBON	330 5% 1/4W (★:A)	R362	1-249-437-11	CARBON	47K 5% 1/4W
R306	1-249-434-11	CARBON	27K 5% 1/4W (★:A)	R363	1-249-425-11	CARBON	4.7K 5% 1/4W F (★:B)
				R364	1-249-425-11	CARBON	4.7K 5% 1/4W F (★:B)
				R365	1-249-429-11	CARBON	10K 5% 1/4W (D209, *8, 9, 10)
				R366	1-249-413-11	CARBON	470 5% 1/4W F (★:B)
				R367	1-249-434-11	CARBON	27K 5% 1/4W (★:B)
				R368	1-249-433-11	CARBON	22K 5% 1/4W (★:B)
				R370	1-249-423-11	CARBON	3.3K 5% 1/4W F (★:A)

MAIN SURROUND

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>
R501	1-249-417-11	CARBON	1K 5% 1/4W F	R1023	1-249-437-11	CARBON	47K 5% 1/4W
R502	1-249-417-11	CARBON	1K 5% 1/4W F	R1024	1-249-417-11	CARBON	1K 5% 1/4W F
R503	1-249-417-11	CARBON	1K 5% 1/4W F	R1029	1-249-433-11	CARBON	22K 5% 1/4W (*1)
R504	1-249-417-11	CARBON	1K 5% 1/4W F	R1030	1-249-433-11	CARBON	22K 5% 1/4W (*1)
R505	1-249-429-11	CARBON	10K 5% 1/4W	R1031	1-249-433-11	CARBON	22K 5% 1/4W (*1)
R506	1-249-417-11	CARBON	1K 5% 1/4W F	R1035	1-249-415-11	CARBON	680 5% 1/4W F
R510	1-249-401-11	CARBON	47 5% 1/4W F	R1037	1-249-421-11	CARBON	2.2K 5% 1/4W F
R511	1-249-429-11	CARBON	10K 5% 1/4W	R1051	1-249-417-11	CARBON	1K 5% 1/4W F
R512	1-249-425-11	CARBON	4.7K 5% 1/4W F	R1052	1-249-441-11	CARBON	100K 5% 1/4W
R513	1-249-417-11	CARBON	1K 5% 1/4W F	R1053	1-249-416-11	CARBON	820 5% 1/4W F
R514	1-249-429-11	CARBON	10K 5% 1/4W	R1054	1-247-897-11	CARBON	560K 5% 1/4W
R515	1-249-417-11	CARBON	1K 5% 1/4W F	R1055	1-249-437-11	CARBON	47K 5% 1/4W
R521	1-249-423-11	CARBON	3.3K 5% 1/4W F	R1056	1-249-409-11	CARBON	220 5% 1/4W F
R522	1-249-425-11	CARBON	4.7K 5% 1/4W F	R1057	1-249-441-11	CARBON	100K 5% 1/4W
R523	1-249-414-11	CARBON	560 5% 1/4W F	R1058	1-249-409-11	CARBON	220 5% 1/4W F
R524	1-249-417-11	CARBON	1K 5% 1/4W F	R1060	1-249-417-11	CARBON	1K 5% 1/4W F
R525	1-249-410-11	CARBON	270 5% 1/4W F	R1062	1-249-417-11	CARBON	1K 5% 1/4W F
R526	1-249-421-11	CARBON	2.2K 5% 1/4W F	R1063	1-249-441-11	CARBON	100K 5% 1/4W
R527	1-249-425-11	CARBON	4.7K 5% 1/4W F	R1065	1-249-415-11	CARBON	680 5% 1/4W F
R528	1-249-425-11	CARBON	4.7K 5% 1/4W F	R1071	1-249-437-11	CARBON	47K 5% 1/4W
R529	1-249-405-11	CARBON	100 5% 1/4W F	R1072	1-249-432-11	CARBON	18K 5% 1/4W (A27)
R530	1-249-405-11	CARBON	100 5% 1/4W F	R1073	1-249-437-11	CARBON	47K 5% 1/4W
R531	1-249-423-11	CARBON	3.3K 5% 1/4W F (*★:B)	R1074	1-249-417-11	CARBON	1K 5% 1/4W F
R532	1-249-433-11	CARBON	22K 5% 1/4W (*★:B)	R1095	1-249-433-11	CARBON	22K 5% 1/4W (A27, *11)
R533	1-249-414-11	CARBON	560 5% 1/4W F (*★:B)	R1222	1-249-415-11	CARBON	680 5% 1/4W F
R534	1-249-417-11	CARBON	1K 5% 1/4W F (*★:B)	R1223	1-249-415-11	CARBON	680 5% 1/4W F
R535	1-249-410-11	CARBON	270 5% 1/4W F (*★:B)	R1226	1-215-890-11	METAL OXIDE	470 5% 2W F
R536	1-249-421-11	CARBON	2.2K 5% 1/4W F (*★:B)	R1233	1-249-433-11	CARBON	22K 5% 1/4W
R537	1-249-425-11	CARBON	4.7K 5% 1/4W F (*★:B)	R1234	1-249-433-11	CARBON	22K 5% 1/4W
R538	1-249-405-11	CARBON	100 5% 1/4W F (*★:B)	R1235	1-249-437-11	CARBON	47K 5% 1/4W
R613	1-249-441-11	CARBON	100K 5% 1/4W (*9, 10, 11)	R1236	1-249-441-11	CARBON	100K 5% 1/4W
R631	1-249-441-11	CARBON	100K 5% 1/4W (A27, D209, *8)	R1237	1-249-429-11	CARBON	10K 5% 1/4W
R1001	1-249-417-11	CARBON	1K 5% 1/4W F	R1240	1-249-438-11	CARBON	56K 5% 1/4W
R1002	1-249-441-11	CARBON	100K 5% 1/4W	R1241	1-249-385-11	CARBON	2.2 5% 1/6W F (*★:A)
R1003	1-249-416-11	CARBON	820 5% 1/4W F	R1242	1-249-385-11	CARBON	2.2 5% 1/6W F (*★:A)
R1004	1-247-897-11	CARBON	560K 5% 1/4W	R1243	1-249-385-11	CARBON	2.2 5% 1/6W F (*★:A)
R1005	1-249-437-11	CARBON	47K 5% 1/4W	R1244	1-249-385-11	CARBON	2.2 5% 1/6W F (*★:A)
R1006	1-249-409-11	CARBON	220 5% 1/4W F	R1272	1-249-415-11	CARBON	680 5% 1/4W F
R1007	1-249-441-11	CARBON	100K 5% 1/4W	R1273	1-249-415-11	CARBON	680 5% 1/4W F
R1008	1-249-409-11	CARBON	220 5% 1/4W F	R1290	1-249-437-11	CARBON	47K 5% 1/4W
R1010	1-249-417-11	CARBON	1K 5% 1/4W F	R1301	1-249-429-11	CARBON	10K 5% 1/4W
R1012	1-249-417-11	CARBON	1K 5% 1/4W F	R1302	1-249-429-11	CARBON	10K 5% 1/4W
R1013	1-249-441-11	CARBON	100K 5% 1/4W	R1306	1-249-433-11	CARBON	22K 5% 1/4W
R1014	1-249-437-11	CARBON	47K 5% 1/4W	R1309	1-249-433-11	CARBON	22K 5% 1/4W
R1015	1-249-437-11	CARBON	47K 5% 1/4W	R1321	1-249-417-11	CARBON	1K 5% 1/4W F
R1021	1-249-437-11	CARBON	47K 5% 1/4W	R1322	1-249-429-11	CARBON	10K 5% 1/4W
R1022	1-249-432-11	CARBON	18K 5% 1/4W (A27)	R1345	1-249-421-11	CARBON	2.2K 5% 1/4W F
				R1346	1-249-425-11	CARBON	4.7K 5% 1/4W F (*★:C)
				R1347	1-249-417-11	CARBON	1K 5% 1/4W F

MAIN	SURROUND	PANEL	H. P	POWER SUPPLY (B)	MIC	STAND-BY	VR
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<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>				
< VARIABLE RESISTOR >											
RV301	1-238-601-11	RES, ADJ, CARBON 22K		*	1-646-478-11	POWER SUPPLY (B) BOARD	*****				
RV302	1-238-601-11	RES, ADJ, CARBON 22K		*	1-646-479-11	MIC BOARD (A27)	*****				
< RELAY >											
RY1201	1-515-533-11	RELAY		*	1-646-480-11	STAND-BY SW BOARD	*****				
RY1201	1-515-920-11	RELAY (24V) (D209, *8)		*	1-646-497-11	VR BOARD	*****				
< TRANSFORMER >											
T301	1-404-807-11	TRANSFORMER, DISCRIMINATOR		*	1-533-213-11	HOLDER, FUSE (*2, D259)					
T302	1-235-126-00	ENCAPSULATED COMPONENT (★:A)		*	1-533-213-31	HOLDER, FUSE (*2, D259)					
< TERMINAL >											
TM301	1-537-264-11	TERMINAL BOARD (ANTENNA) (A27, *3, 10, 11)		*	1-533-217-31	HOLDER, FUSE (D209)					
* TM301	1-537-288-11	TERMINAL BOARD, ANTENNA (PAL) (ANTENNA) (*4, 5, 6, 7, 8, 9)		*	1-533-293-11	FUSE HOLDER (*2, D259)					
< TEST PIN >											
* TP1	1-560-060-00	PIN, CONNECTOR 2P		*	4-942-301-01	HOLDER, FL TUBE					
< VIBRATOR >											
XT501	1-577-126-21	VIBRATOR, CRYSTAL		*	4-949-935-31	CUSHION (FL) (*2, D259)					
XT501	1-579-383-11	VIBRATOR, CRYSTAL		< CAPACITOR >							

* A-4356-640-A	PANEL BOARD, COMPLETE (*1)		*****	C603	1-136-169-00	FILM 0.22uF	5% 50V				
* A-4356-736-A	PANEL BOARD, COMPLETE (*2)		*****	C604	1-164-159-11	CERAMIC 0.1uF	50V				
* A-4356-623-A	PANEL BOARD, COMPLETE (*3)		*****	C605	1-125-486-11	DOUBLE LAYERS 0.22F	5.5V				
* A-4356-930-A	PANEL BOARD, COMPLETE (*4)		*****	C606	1-164-159-11	CERAMIC 0.1uF	50V				
* A-4360-822-A	PANEL BOARD, COMPLETE (*5)		*****	C607	1-124-907-11	ELECT 10uF	20% 50V				
* A-4356-924-A	PANEL BOARD, COMPLETE (*6)		*****	C608	1-161-379-00	CERAMIC 0.01uF	20% 25V				
* A-4356-608-A	PANEL BOARD, COMPLETE (*7)		*****	C609	1-161-379-00	CERAMIC 0.01uF	20% 25V				
* A-4360-541-A	PANEL BOARD, COMPLETE (*8)		*****	C610	1-162-286-31	CERAMIC 220PF	10% 50V				
* A-4360-531-A	PANEL BOARD, COMPLETE (*9)		*****	C650	1-124-907-11	ELECT 10uF	20% 50V				
* A-4360-520-A	PANEL BOARD, COMPLETE (*10)		*****	C1101	1-124-257-00	ELECT 2.2uF	20% 50V				
* A-4360-509-A	PANEL BOARD, COMPLETE (*11)		*****	C1102	1-124-589-11	ELECT 47uF	20% 16V				
* 1-646-477-11	H. P BOARD		*****	C1103	1-162-282-31	CERAMIC 100PF	10% 50V				
			*****	C1104	1-124-257-00	ELECT 2.2uF	20% 50V				
			*****	C1105	1-124-464-11	ELECT 0.22uF	20% 50V				
			*****	C1106	1-136-161-00	FILM 0.047uF	5% 50V				
			*****	C1107	1-136-155-00	FILM 0.015uF	5% 50V				
			*****	C1108	1-136-155-00	FILM 0.015uF	5% 50V				
			*****	C1109	1-137-437-11	FILM 0.0056uF	5% 50V				
			*****	C1110	1-161-327-00	CERAMIC 0.0033uF	20% 16V				
			*****	C1111	1-136-155-00	FILM 0.015uF	5% 50V				
			*****	C1112	1-136-157-00	FILM 0.022uF	5% 50V				
			*****	C1113	1-136-153-00	FILM 0.01uF	5% 50V				
			*****	C1114	1-161-377-00	CERAMIC 0.0047uF	20% 16V				
			*****	C1115	1-124-257-00	ELECT 2.2uF	20% 50V				
			*****	C1120	1-161-379-00	CERAMIC 0.01uF	20% 25V				
			*****	C1121	1-161-379-00	CERAMIC 0.01uF	20% 25V				
			*****	C1123	1-162-286-31	CERAMIC 220PF	10% 50V				
			*****	C1131	1-162-215-31	CERAMIC 47PF	5% 50V				
			*****	C1132	1-162-215-31	CERAMIC 47PF	5% 50V				
			*****	C1151	1-124-257-00	ELECT 2.2uF	20% 50V				
			*****	C1152	1-124-589-11	ELECT 47uF	20% 16V				
			*****	C1153	1-162-282-31	CERAMIC 100PF	10% 50V				
			*****	C1154	1-124-257-00	ELECT 2.2uF	20% 50V				

PANEL	H. P	POWER SUPPLY (B)	MIC	STAND-BY	VR
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Ref. No.	Part No.	Description	Remarks			Ref. No.	Part No.	Description	Remarks
C1155	1-124-464-11	ELECT	0.22uF	20%	50V	D614	8-719-987-63	DIODE	1N4148M
C1156	1-136-161-00	FILM	0.047uF	5%	50V	D615	8-719-987-63	DIODE	1N4148M
C1157	1-136-155-00	FILM	0.015uF	5%	50V	D616	8-719-987-63	DIODE	1N4148M
C1158	1-136-155-00	FILM	0.015uF	5%	50V	D622	8-719-987-63	DIODE	1N4148M (*1, 4, 8, 11)
C1159	1-137-437-11	FILM	0.0056uF	5%	50V	D623	8-719-987-63	DIODE	1N4148M (A27, *11)
C1160	1-161-327-00	CERAMIC	0.0033uF	20%	16V	D624	8-719-987-63	DIODE	1N4148M (*5)
C1161	1-136-155-00	FILM	0.015uF	5%	50V	D625	8-719-987-63	DIODE	1N4148M
C1162	1-136-157-00	FILM	0.022uF	5%	50V	D626	8-719-987-63	DIODE	1N4148M
C1163	1-136-153-00	FILM	0.01uF	5%	50V	D629	8-719-987-63	DIODE	1N4148M
C1164	1-161-377-00	CERAMIC	0.0047uF	20%	16V	D641	8-719-200-82	DIODE	11ES2
C1165	1-124-257-00	ELECT	2.2uF	20%	50V	D1130	8-719-301-37	LED	SEL2210S-CD
C1173	1-162-286-31	CERAMIC	220PF	10%	50V	D1131	8-719-301-37	LED	SEL2210S-CD
C1181	1-162-215-31	CERAMIC	47PF	5%	50V	D1132	8-719-301-37	LED	SEL2210S-CD
C1182	1-162-215-31	CERAMIC	47PF	5%	50V	D1133	8-719-301-37	LED	SEL2210S-CD
C1198	1-161-379-00	CERAMIC	0.01uF	20%	25V	D1134	8-719-301-37	LED	SEL2210S-CD
C1237	1-162-282-31	CERAMIC	100PF	10%	50V (★:A)	D1141	8-719-301-37	LED	SEL2210S-CD
C1238	1-162-282-31	CERAMIC	100PF	10%	50V (★:A)	D1145	8-719-313-69	DIODE	SEL3210S-CD
C1401	1-162-294-31	CERAMIC	0.001uF	10%	50V (A27)	D1151	8-719-987-63	DIODE	1N4148M
C1402	1-124-916-11	ELECT	22uF	20%	63V (A27)	D1152	8-719-987-63	DIODE	1N4148M
C1403	1-124-916-11	ELECT	22uF	20%	63V (A27)	D1153	8-719-987-63	DIODE	1N4148M
C1406	1-124-443-00	ELECT	100uF	20%	10V (*2)	D1154	8-719-987-63	DIODE	1N4148M
C1408	1-126-163-11	ELECT	4.7uF	20%	50V (A27)				
C1409	1-161-379-00	CERAMIC	0.01uF	20%	25V (A27)				
C1410	1-126-163-11	ELECT	4.7uF	20%	50V (A27, D259)				
C1411	1-124-443-00	ELECT	100uF	20%	10V (*1)				
C1601	1-124-925-11	ELECT	2.2uF	20%	100V (A27)				
C1602	1-124-463-00	ELECT	0.1uF	20%	50V (A27)				
C1603	1-124-925-11	ELECT	2.2uF	20%	100V (A27)				
C1604	1-162-294-31	CERAMIC	0.001uF	10%	50V (A27)				
C1605	1-162-215-31	CERAMIC	47PF	5%	50V (A27)				
C1606	1-162-282-31	CERAMIC	100PF	10%	50V (A27)				
C1607	1-162-215-31	CERAMIC	47PF	5%	50V (A27)				
C1608	1-124-589-11	ELECT	47uF	20%	16V (A27)				
C1609	1-124-589-11	ELECT	47uF	20%	16V (A27)				
C1610	1-162-282-31	CERAMIC	100PF	10%	50V (A27)				
< CONNECTOR >									
* CN601	1-568-830-11	SOCKET, CONNECTOR	11P			J601	1-691-002-11	JACK, LARGE TYPE (HEADPHONES)	(*2)
CN1101	1-568-802-11	SOCKET, CONNECTOR	19P			J601	1-573-151-11	JACK, LARGE TYPE (HEADPHONES)	(*1)
< DIODE >									
D601	8-719-987-63	DIODE	IN4148M			* J1201	1-691-003-11	JACK, LARGE TYPE (MIC)	
D602	8-719-010-26	DIODE	UZ-3.9BSB						
D603	8-719-987-63	DIODE	IN4148M						
D604	8-719-987-63	DIODE	IN4148M						
D605	8-719-987-63	DIODE	IN4148M						
D606	8-719-933-48	DIODE	HZS7B3L						
D611	8-719-987-63	DIODE	IN4148M						
D612	8-719-987-63	DIODE	IN4148M						
D613	8-719-987-63	DIODE	IN4148M						
< COIL >									
L601	1-410-521-11	INDUCTOR			100uH				
< TRANSISTOR >									
Q601	8-729-620-05	TRANSISTOR	2SC2603-EF	(*2, D259)					
Q601	8-729-119-78	TRANSISTOR	2SC2785-HFE	(*1, D209)					
Q602	8-729-900-80	TRANSISTOR	DTC114ES						
Q603	8-729-900-80	TRANSISTOR	DTC114ES						
Q1101	8-729-620-05	TRANSISTOR	2SC2603-EF	(*2, D259)					

PANEL	H. P	POWER SUPPLY (B)	MIC	STAND-BY	VR
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Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
Q1101	8-729-119-78	TRANSISTOR	2SC2785-HFE (*1, D209)	R1114	1-249-429-11	CARBON	10K 5% 1/4W
Q1102	8-729-141-26	TRANSISTOR	2SC3622A-LK	R1115	1-249-429-11	CARBON	10K 5% 1/4W
Q1121	8-729-900-36	TRANSISTOR	DTC124ES	R1116	1-247-852-11	CARBON	7.5K 5% 1/4W
Q1122	8-729-119-76	TRANSISTOR	2SA1175-HFE	R1117	1-247-852-11	CARBON	7.5K 5% 1/4W
Q1136	8-729-900-36	TRANSISTOR	DTC124ES	R1118	1-249-425-11	CARBON	4.7K 5% 1/4W F
Q1138	8-729-900-36	TRANSISTOR	DTC124ES	R1119	1-249-425-11	CARBON	4.7K 5% 1/4W F
Q1141	8-729-900-63	TRANSISTOR	DTA124ES	R1120	1-249-423-11	CARBON	3.3K 5% 1/4W F
Q1142	8-729-900-63	TRANSISTOR	DTA124ES	R1121	1-249-423-11	CARBON	3.3K 5% 1/4W F
Q1143	8-729-900-80	TRANSISTOR	DTC114ES	R1122	1-247-887-00	CARBON	220K 5% 1/4W
Q1144	8-729-900-80	TRANSISTOR	DTC114ES	R1123	1-249-421-11	CARBON	2.2K 5% 1/4W F
Q1145	8-729-900-61	TRANSISTOR	DTA114ES	R1124	1-249-425-11	CARBON	4.7K 5% 1/4W F
Q1151	8-729-620-05	TRANSISTOR	2SC2603-EF (*2, D259)	R1125	1-249-433-11	CARBON	22K 5% 1/4W
Q1151	8-729-119-78	TRANSISTOR	2SC2785-HFE (*1, D209)	R1126	1-249-423-11	CARBON	3.3K 5% 1/4W F (A27)
Q1152	8-729-141-26	TRANSISTOR	2SC3622A-LK	R1127	1-249-436-11	CARBON	39K 5% 1/4W (A27)
< RESISTOR >							
R601	1-249-429-11	CARBON	10K 5% 1/4W	R1132	1-249-412-11	CARBON	390 5% 1/4W F
R602	1-249-429-11	CARBON	10K 5% 1/4W	R1133	1-249-412-11	CARBON	390 5% 1/4W F
R603	1-249-423-11	CARBON	3.3K 5% 1/4W F	R1135	1-249-433-11	CARBON	22K 5% 1/4W
R604	1-249-437-11	CARBON	47K 5% 1/4W (*4, 8)	R1142	1-249-412-11	CARBON	390 5% 1/4W F
R605	1-249-433-11	CARBON	22K 5% 1/4W	R1143	1-249-433-11	CARBON	22K 5% 1/4W
R606	1-249-433-11	CARBON	22K 5% 1/4W	R1145	1-249-412-11	CARBON	390 5% 1/4W F
R607	1-249-439-11	CARBON	68K 5% 1/4W	R1149	1-249-429-11	CARBON	10K 5% 1/4W
R608	1-249-417-11	CARBON	1K 5% 1/4W F	R1151	1-249-441-11	CARBON	100K 5% 1/4W
R609	1-249-405-11	CARBON	100 5% 1/4W F	R1152	1-249-417-11	CARBON	1K 5% 1/4W F
R610	1-249-429-11	CARBON	10K 5% 1/4W	R1154	1-249-441-11	CARBON	100K 5% 1/4W
R611	1-249-437-11	CARBON	47K 5% 1/4W	R1155	1-249-433-11	CARBON	22K 5% 1/4W
R612	1-249-417-11	CARBON	1K 5% 1/4W F	R1156	1-249-424-11	CARBON	3.9K 5% 1/4W F
R613	1-249-425-11	CARBON	4.7K 5% 1/4W F	R1157	1-249-441-11	CARBON	100K 5% 1/4W
R614	1-249-393-11	CARBON	10 5% 1/4W F	R1158	1-249-427-11	CARBON	6.8K 5% 1/4W F
R621	1-249-433-11	CARBON	22K 5% 1/4W	R1159	1-249-412-11	CARBON	390 5% 1/4W F
R622	1-249-433-11	CARBON	22K 5% 1/4W	R1160	1-249-431-11	CARBON	15K 5% 1/4W
R623	1-249-433-11	CARBON	22K 5% 1/4W	R1161	1-249-439-11	CARBON	68K 5% 1/4W
R624	1-249-433-11	CARBON	22K 5% 1/4W	R1162	1-249-433-11	CARBON	22K 5% 1/4W
R625	1-249-417-11	CARBON	1K 5% 1/4W F (*1, D259)	R1163	1-249-431-11	CARBON	15K 5% 1/4W
R642	1-249-409-11	CARBON	220 5% 1/4W F	R1164	1-249-429-11	CARBON	10K 5% 1/4W
R643	1-249-417-11	CARBON	1K 5% 1/4W F (*2, D209, 8, 10, 11)	R1165	1-249-429-11	CARBON	10K 5% 1/4W
R1065	1-249-409-11	CARBON	220 5% 1/4W F (*2)	R1166	1-247-852-11	CARBON	7.5K 5% 1/4W
R1101	1-249-441-11	CARBON	100K 5% 1/4W	R1167	1-247-852-11	CARBON	7.5K 5% 1/4W
R1102	1-249-417-11	CARBON	1K 5% 1/4W F	R1168	1-249-425-11	CARBON	4.7K 5% 1/4W F
R1103	1-249-431-11	CARBON	15K 5% 1/4W	R1169	1-249-425-11	CARBON	4.7K 5% 1/4W F
R1104	1-249-441-11	CARBON	100K 5% 1/4W	R1170	1-249-423-11	CARBON	3.3K 5% 1/4W F
R1105	1-249-433-11	CARBON	22K 5% 1/4W	R1171	1-249-423-11	CARBON	3.3K 5% 1/4W F
R1106	1-249-424-11	CARBON	3.9K 5% 1/4W F	R1172	1-247-887-00	CARBON	220K 5% 1/4W
R1107	1-249-441-11	CARBON	100K 5% 1/4W	R1173	1-249-421-11	CARBON	2.2K 5% 1/4W F
R1108	1-249-427-11	CARBON	6.8K 5% 1/4W F	R1174	1-249-425-11	CARBON	4.7K 5% 1/4W F
R1109	1-249-412-11	CARBON	390 5% 1/4W F	R1176	1-249-423-11	CARBON	3.3K 5% 1/4W F (A27)
R1110	1-249-431-11	CARBON	15K 5% 1/4W	R1177	1-249-436-11	CARBON	39K 5% 1/4W (A27)
R1111	1-249-439-11	CARBON	68K 5% 1/4W	R1401	1-249-418-11	CARBON	1.2K 5% 1/4W F (A27)
R1112	1-249-433-11	CARBON	22K 5% 1/4W	R1402	1-247-881-00	CARBON	120K 5% 1/4W (A27)
R1113	1-249-431-11	CARBON	15K 5% 1/4W	R1403	1-247-881-00	CARBON	120K 5% 1/4W (A27)
				R1405	1-249-409-11	CARBON	220 5% 1/4W F (*1)

PANEL	H. P	POWER SUPPLY (B)	MIC	STAND-BY	VR	POWER AMPLIFIER
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Ref. No.	Part No.	Description				Remarks
R1411	1-239-054-11	COMPOSITION CIRCUIT BLOCK				(A27)
R1412	1-239-054-11	COMPOSITION CIRCUIT BLOCK				(A27)
R1601	1-249-429-11	CARBON	10K	5%	1/4W	(A27)
R1602	1-249-417-11	CARBON	1K	5%	1/4W	F (A27)
R1603	1-249-412-11	CARBON	390	5%	1/4W	F (A27)
R1604	1-249-434-11	CARBON	27K	5%	1/4W	(A27)
R1605	1-249-433-11	CARBON	22K	5%	1/4W	(A27)
R1606	1-249-437-11	CARBON	47K	5%	1/4W	(A27)
< VARIABLE RESISTOR >						
RV1101	1-223-251-11	RES, VAR, CARBON	100K/100K	(SURROUND)		
RV1102	1-223-251-11	RES, VAR, CARBON	100K/100K	(DBFB)		
RV1103	1-223-289-11	RES, VAR, SLIDE	100K	(100Hz)		
RV1104	1-223-289-11	RES, VAR, SLIDE	100K	(330Hz)		
RV1105	1-223-289-11	RES, VAR, SLIDE	100K	(1KHz)		
RV1106	1-223-289-11	RES, VAR, SLIDE	100K	(3.3KHz)		
RV1107	1-223-289-11	RES, VAR, SLIDE	100K	(10KHz)		
RV1108	1-223-253-11	RES, VAR, CARBON	100K/100K	(BALANCE)		
RV1109	1-223-291-11	RES, VAR, CARBON	100K/100K	(VOLUME)		
RV1153	1-223-289-11	RES, VAR, SLIDE	100K	(100Hz)		
RV1154	1-223-289-11	RES, VAR, SLIDE	100K	(330Hz)		
RV1155	1-223-289-11	RES, VAR, SLIDE	100K	(1KHz)		
RV1156	1-223-289-11	RES, VAR, SLIDE	100K	(3.3KHz)		
RV1157	1-223-289-11	RES, VAR, SLIDE	100K	(10KHz)		
< SWITCH >						
S601	1-554-303-21	SWITCH, TACTILE	(1)			
S602	1-554-303-21	SWITCH, TACTILE	(2)			
S603	1-554-303-21	SWITCH, TACTILE	(3)			
S604	1-554-303-21	SWITCH, TACTILE	(4)			
S605	1-554-303-21	SWITCH, TACTILE	(5)			
S606	1-554-303-21	SWITCH, TACTILE	(6)			
S607	1-554-303-21	SWITCH, TACTILE	(7)			
S608	1-554-303-21	SWITCH, TACTILE	(8)			
S609	1-554-303-21	SWITCH, TACTILE	(9)			
S610	1-554-303-21	SWITCH, TACTILE	(0)			
S611	1-554-303-21	SWITCH, TACTILE	(+)			
S612	1-554-303-21	SWITCH, TACTILE	(-)			
S613	1-554-303-21	SWITCH, TACTILE	(SHIFT)			
S614	1-554-303-21	SWITCH, TACTILE	(BAND SELECT)			
S615	1-554-303-21	SWITCH, TACTILE	(ST/MUTE)			
S616	1-554-303-21	SWITCH, TACTILE	(MEMORY)			
S618	1-554-303-21	SWITCH, TACTILE	(SYSTEM POWER)			
S619	1-554-303-21	SWITCH, TACTILE	(VIDEO)	(A27, *4, D259)		
S620	1-554-303-21	SWITCH, TACTILE	(TAPE)			
S621	1-554-303-21	SWITCH, TACTILE	(CD)			
S622	1-554-303-21	SWITCH, TACTILE	(TUNER)			
S623	1-554-303-21	SWITCH, TACTILE	(PHONO)			
S1102	1-571-305-11	SWITCH, PUSH	(EQUILIZER)	(1 KEY)		

Ref. No.	Part No.	Description				Remarks
		< VIBRATOR >				
X601	1-567-775-11	VIBRATOR, CERAMIC				

*	A-4356-649-A	POWER AMPLIFIER BOARD, COMPLETE	(*1)			
*	A-4356-749-A	POWER AMPLIFIER BOARD, COMPLETE	(*2)			
*	A-4356-628-A	POWER AMPLIFIER BOARD, COMPLETE	(*3)			
*	A-4356-935-A	POWER AMPLIFIER BOARD, COMPLETE	(*4, 6)			
*	A-4356-616-A	POWER AMPLIFIER BOARD, COMPLETE	(*5, 7)			
*	A-4360-546-A	POWER AMPLIFIER BOARD, COMPLETE	(*8)			
*	A-4360-537-A	POWER AMPLIFIER BOARD, COMPLETE	(*9)			
*	A-4360-527-A	POWER AMPLIFIER BOARD, COMPLETE	(*10)			
*	A-4360-516-A	POWER AMPLIFIER BOARD, COMPLETE	(*11)			
		< CAPACITOR >				
C1201	1-124-257-00	ELECT	2. 2uF	20%	50V	
C1202	1-162-286-31	CERAMIC	220PF	10%	50V	(EXCEPT ★:A)
C1202	1-162-290-31	CERAMIC	470PF	10%	50V	(★:A)
C1203	1-162-286-31	CERAMIC	220PF	10%	50V	(EXCEPT ★:A)
C1203	1-162-292-31	CERAMIC	680PF	10%	50V	(★:A)
C1204	1-124-477-11	ELECT	47uF	20%	25V	
C1205	1-124-910-11	ELECT	47uF	20%	50V	
C1206	1-124-122-11	ELECT	100uF	20%	50V	
C1207	1-136-165-00	FILM	0. 1uF	5%	50V	
C1208	1-124-916-11	ELECT	22uF	20%	63V	
C1209	1-164-159-11	CERAMIC	0. 1uF		50V	
C1210	1-136-163-00	FILM	0. 068uF	5%	50V	
C1211	1-136-163-00	FILM	0. 068uF	5%	50V	
C1220	1-124-910-11	ELECT	47uF	20%	50V	
C1230	1-161-494-00	CERAMIC	0. 022uF		25V	(★:A)
C1231	1-161-494-00	CERAMIC	0. 022uF		25V	(★:A)
C1232	1-161-494-00	CERAMIC	0. 022uF		25V	(★:A)
C1233	1-161-494-00	CERAMIC	0. 022uF		25V	(★:A)
C1251	1-124-257-00	ELECT	2. 2uF	20%	50V	
C1252	1-162-286-31	CERAMIC	220PF	10%	50V	(EXCEPT ★:A)
C1252	1-162-290-31	CERAMIC	470PF	10%	50V	(★:A)

POWER AMPLIFIER

POWER SUPPLY

Ref. No.	Part No.	Description	Remarks		
C1253	1-162-286-31	CERAMIC	220PF	10%	50V (EXCEPT ★:A)
C1253	1-162-292-31	CERAMIC	680PF	10%	50V (★:A)
C1254	1-124-477-11	ELECT	47uF	20%	25V
C1255	1-124-910-11	ELECT	47uF	20%	50V
C1256	1-124-122-11	ELECT	100uF	20%	50V
C1257	1-136-165-00	FILM	0.1uF	5%	50V
C1260	1-136-163-00	FILM	0.068uF	5%	50V
C1261	1-136-163-00	FILM	0.068uF	5%	50V
C1280	1-161-494-00	CERAMIC	0.022uF	25V	(★:A)

< CONNECTOR >

* CN1201 1-564-518-11 PLUG, CONNECTOR 3P
* CN1202 1-564-522-11 PLUG, CONNECTOR 7P

< DIODE >

D1201 8-719-987-63 DIODE 1N4148M
D1251 8-719-987-63 DIODE 1N4148M

< IC >

IC1201 8-749-900-24 IC STK-4162MK2 (A27, *11)
IC1201 8-749-900-96 IC STK-4142MK2 (D209, *8, 9, 10)

< COIL >

L1221 1-420-872-00 COIL, AIR CORE
L1251 1-420-872-00 COIL, AIR CORE

< TRANSISTOR >

Q1201 8-729-140-84 TRANSISTOR 2SC1841-PAFAEA
Q1202 8-729-900-80 TRANSISTOR DTC114ES
Q1203 8-729-620-05 TRANSISTOR 2SC2603-EF (*2, D259)
Q1203 8-729-119-78 TRANSISTOR 2SC2785-HFE (*1, D209)
Q1251 8-729-140-84 TRANSISTOR 2SC1841-PAFAEA

< RESISTOR >

R1201	1-249-417-11	CARBON	1K	5%	1/4W F
R1202	1-249-438-11	CARBON	56K	5%	1/4W
R1203	1-249-417-11	CARBON	1K	5%	1/4W F
R1204	1-249-438-11	CARBON	56K	5%	1/4W
R1205	1-249-425-11	CARBON	4.7K	5%	1/4W F
R1206	1-249-425-11	CARBON	4.7K	5%	1/4W F
R1207	1-249-425-11	CARBON	4.7K	5%	1/4W F
R1208	1-249-425-11	CARBON	4.7K	5%	1/4W F
△R1209	1-212-881-11	FUSIBLE	100	5%	1/4W F
△R1210	1-217-151-00	RES, METAL PLATE		0.22	
R1211	1-249-417-11	CARBON	1K	5%	1/4W F
R1212	1-249-431-11	CARBON	15K	5%	1/4W
R1213	1-249-441-11	CARBON	100K	5%	1/4W
R1214	1-249-421-11	CARBON	2.2K	5%	1/4W F
R1215	1-249-421-11	CARBON	2.2K	5%	1/4W F

Ref. No.	Part No.	Description	Remarks		
R1216	1-249-421-11	CARBON	2.2K	5%	1/4W F
R1217	1-249-421-11	CARBON	2.2K	5%	1/4W F
R1218	1-249-397-11	CARBON	22	5%	1/4W F
R1219	1-249-397-11	CARBON	22	5%	1/4W F
R1220	1-249-397-11	CARBON	22	5%	1/4W F
R1221	1-249-397-11	CARBON	22	5%	1/4W F
R1227	1-249-429-11	CARBON	10K	5%	1/4W
R1228	1-247-881-00	CARBON	120K	5%	1/4W
R1229	1-249-439-11	CARBON	68K	5%	1/4W
R1230	1-249-439-11	CARBON	68K	5%	1/4W

R1231	1-249-417-11	CARBON	1K	5%	1/4W F
R1232	1-249-428-11	CARBON	8.2K	5%	1/4W F
R1238	1-249-433-11	CARBON	22K	5%	1/4W
R1239	1-249-426-11	CARBON	5.6K	5%	1/4W
R1241	1-249-383-81	CARBON	1.5	5%	1/4W F (*3, 5, 7)

R1251	1-249-417-11	CARBON	1K	5%	1/4W F
R1252	1-249-438-11	CARBON	56K	5%	1/4W
R1253	1-249-417-11	CARBON	1K	5%	1/4W F
R1254	1-249-438-11	CARBON	56K	5%	1/4W
R1255	1-249-425-11	CARBON	4.7K	5%	1/4W F

R1256	1-249-425-11	CARBON	4.7K	5%	1/4W F
R1257	1-249-425-11	CARBON	4.7K	5%	1/4W F
R1258	1-249-425-11	CARBON	4.7K	5%	1/4W F
△R1259	1-212-881-11	FUSIBLE	100	5%	1/4W F
△R1260	1-217-151-00	RES, METAL PLATE		0.22	

R1261	1-249-417-11	CARBON	1K	5%	1/4W F
R1262	1-249-431-11	CARBON	15K	5%	1/4W
R1263	1-249-441-11	CARBON	100K	5%	1/4W
R1268	1-249-397-11	CARBON	22	5%	1/4W F
R1269	1-249-397-11	CARBON	22	5%	1/4W F

R1270	1-249-397-11	CARBON	22	5%	1/4W F
R1271	1-249-397-11	CARBON	22	5%	1/4W F

* 1-646-474-11 POWER SUPPLY BOARD

< CAPACITOR >

C1301	1-161-744-00	CERAMIC	0.01uF	400V
C1314	1-124-122-11	ELECT	100uF	20% 50V
C1315	1-124-927-11	ELECT	4.7uF	20% 100V
C1316	1-124-910-11	ELECT	47uF	20% 50V
C1318	1-124-636-00	ELECT	3300uF	20% 25V
C1348	1-164-159-11	CERAMIC	0.1uF	50V (*4, 5, 6, 7, D259)
C1362	1-124-916-11	ELECT	22uF	20% 63V

Note:
The components identified by mark ▲ or dotted line with mark ▲ are critical for safety. Replace only with part number specified.

Note:
Les composants identifiés par une marque ▲ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

POWER SUPPLY

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks				
< CONNECTOR >											
* CN1301	1-564-321-00	PIN, CONNECTOR 2P		△F1303	1-532-203-00	FUSE 2A (D209, *9, 10)					
CN1311	1-506-468-11	PIN, CONNECTOR 3P		△F1303	1-532-286-00	FUSE 2.5A (A27, D209, *9, 10)					
< DIODE >											
D1307	8-719-002-60	DIODE UZL-33L		△F1303	1-576-104-11	FUSE 2A (*8)					
D1309	8-719-014-66	DIODE UZP-5.6B		△F1304	1-532-203-00	FUSE 2A (D209, *9, 10)					
D1311	8-719-200-82	DIODE 11ES2		△F1304	1-532-286-00	FUSE 2.5A (A27, D209, *9, 10)					
D1370	8-719-200-82	DIODE 11ES2		△F1304	1-576-104-11	FUSE 2A (*8)					
D1321	8-719-987-63	DIODE 1N4148M		△F1305	1-532-286-00	FUSE 2.5A (A27, D209, *9, 10)					
D1322	8-719-987-63	DIODE 1N4148M		△F1305	1-576-105-11	FUSE 2.5A (*8, 11)					
D1354	8-719-200-82	DIODE 11ES2		△F1306	1-532-286-00	FUSE 2.5A (A27, D209, *9, 10)					
D1355	8-719-200-82	DIODE 11ES2		△F1306	1-576-105-11	FUSE 2.5A (*8, 11)					
< TRANSISTOR >											
Q1301	8-729-141-83	TRANSISTOR 2SA473		△T1301	1-423-431-11	TRANSFORMER, POWER (*11)					
< RESISTOR >											
R1303	1-249-421-11	CARBON 2.2K 5%	1/4W F	△T1301	1-423-437-11	TRANSFORMER, POWER (D209)					
R1304	1-249-425-11	CARBON 4.7K 5%	1/4W F	△T1301	1-423-437-21	TRANSFORMER, POWER (*8, 9, 10)					
R1391	1-202-725-00	SOLID 3.3M 10%	1/2W (*11)	△T1301	1-423-438-11	TRANSFORMER, POWER (*1)					
< RELAY >											
RY1301	1-515-720-11	RELAY		△T1301	1-423-438-21	TRANSFORMER, POWER (*2)					
RY1301	1-515-738-11	RELAY, POWER		*****							
< TRANSFORMER >											
△T1302	1-449-723-31	TRANSFORMER, POWER (EXCEPT *11)		ACCESORIES & PACKING MATERIALS							
△T1302	1-450-786-11	TRANSFORMER, POWER (*11)		*****							
< VOLTAGE SELECTION >											
△VS1301	1-572-266-11	SWITCH, VOLTAGE SELECTION (A27)		1-465-963-11	COMMANDER, STANDARD (RM-S271)						
*****				1-501-374-11	ANTENNA, LOOP (*4, 5, 7, 8, D259:AE2)						
*****				1-501-536-11	ANTENNA (*4, 5, 7, 8, D259:AE2)						
*****				1-696-860-11	CORD, CONNECTION 13P (*4, 5, 7, 8, D259:AE2)						
*****				3-703-713-41	STICKER, SONY SYMBOL (10)						
*****				*							
*****				3-707-584-01 COVER, BATTERY							
*****				3-756-331-41 MANUAL, INSTRUCTION (ENGLISH/FRENCH/							
*****				SPANISH/PORTUGUESE) (D209:AE2)							
*****				3-756-331-51 MANUAL, INSTRUCTION (GERMANY/DUTCH/							
*****				SWEDISH/ITALIAN) (D209:AE2, *4)							
*****				3-756-331-61 MANUAL, INSTRUCTION (DANISH/FINNISH) (*5)							
*****				3-756-333-41 MANUAL, INSTRUCTION (ENGLISH/FRENCH/							
*****				SPANISH/PORTUGUESE) (D259:AE2)							
*****				3-756-333-51 MANUAL, INSTRUCTION (GERMANY/DUTCH/							
*****				SWEDISH/ITALIAN) (D259:AE2, *8)							
*****				4-956-903-01 INDIVIDUAL CARTON (D209:AE2, *4)							
*****				4-958-606-01 CUSHION (D209:AE2, *4)							
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HTC-D259/D359

SERVICE MANUAL

Canadian Model

HTC-D259

AEP Model

UK Model

E Model

Australian Model

HTC-D259/D359

PX Model

HTC-D359



Photo: HTC-D359

HTC-D259 is the compact disc deck in LBT-A27CDM / D259CD.

HTC-D359 is the compact disc deck in LBT-A37CDM / D359CD.

SPECIFICATIONS

Cassette deck

Recording system	4-track 2-channel stereo
Frequency response	DOLBY NR OFF
	With Type II cassette (Sony UX-S) 40 Hz to 14 kHz (± 3 dB)
	With Type I cassette (Sony HF-S) 40 Hz to 13 kHz (± 3 dB)
Wow and flutter	0.1% (WRMS)

Compact disc player

Laser	Semiconducotr laser
Wavelength	780 – 790 nm
Frequency response	2 Hz to 20 kHz ± 0.5 dB
Signal-to-noise ratio	More than 93 dB
Dynamic range	More than 90 dB
Harmonic distortion	Less than 0.008% (1 kHz)
Channel separation	More than 90 dB (1 kHz)

General

Mass	Approx. 6.9 kg
Dimensions	Approx. 355 \times 225 \times 385 mm (w/h/d, including projections)

Speaker systems (SS-D270)

Speaker system	2-way
Mass	Approx. 6.3 kg, per speaker
Dimensions	Approx. 260 \times 505 \times 210 mm (w/h/d)

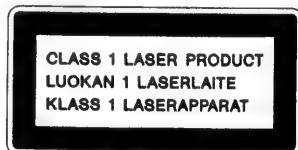
Design and specifications are subject to change without notice.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

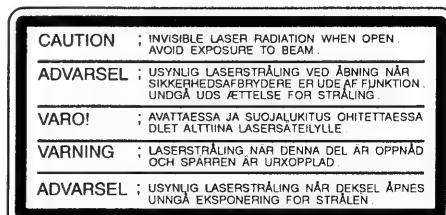
CD Section	Model Name Using Similar Mechanism	HCD-H150/H500
	Base Unit Name	BU-5BD3
DECK Section	Model Name Using Similar Mechanism	HCD-H170 / H170K/H700
	Tape Transport Mechanism	DECK A TCM-190RA12CL
	Type	DECK B TCM-190RB22CL

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.



Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

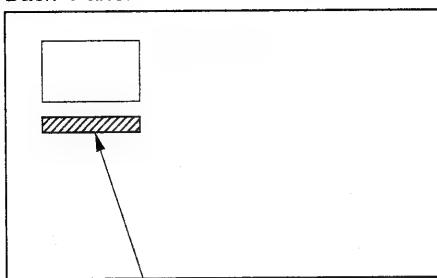
The following caution label is located inside the unit.



COMPACT DISC DECK
SONY[®]

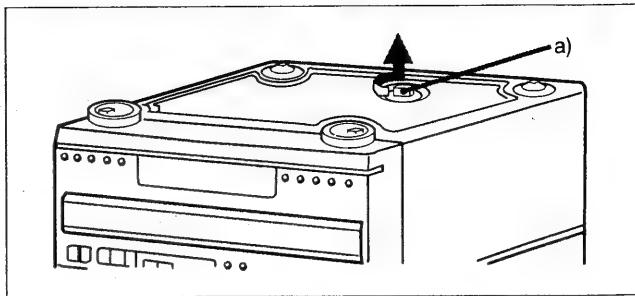
MODEL IDENTIFICATION

Back Panel



4-955-832-01: HTC-D259
4-955-832-11: HTC-D359

Note on the Transit key



The transit key (a)) on the bottom exterior of the CD player protects the optical system against shock during transportation.

Before operating the unit, be sure to remove the key by following the instructions on the label, and store it in a safe place.

When transporting the unit, put the key to its original position and lock it in place.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.

The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe more than 30 cm away from the objective lens.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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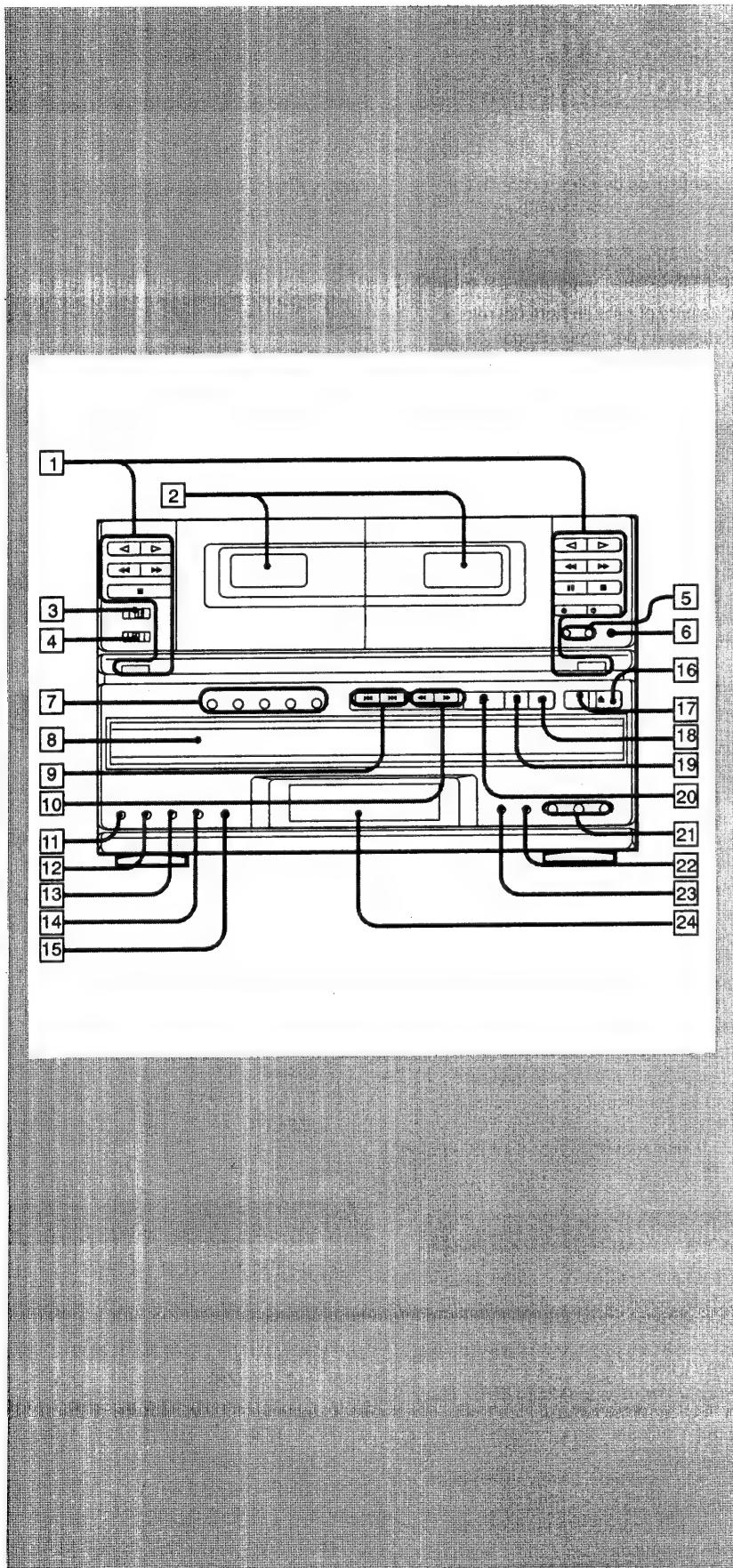
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ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

This section is extracted from instruction manual.

SECTION 1 GENERAL



Location of Controls

Cassette Deck

- [1] Tape operation buttons
 - ◀◀ Leftward fast winding/AMS*
 - ▶▶ Rightward fast winding/AMS*
 - ▶ Forward play
 - ◀ Reverse play
 - Stop
 - ▲ EJECT
 - PAUSE (deck B only)
 - REC MUTE (record muting)
(deck B only)
 - REC (record) (deck B only)
- [2] Cassette holders
- [3] DOLBY NR (noise reduction) switch (32, 82)
- [4] DIRECTION MODE selector (28, 32, 38, 82)
- [5] DUBBING SPEED (HIGH/NORMAL) button (38, 40)
- [6] CD SYNCHRO button (82, 86)
(HTC-D359)

Compact Disc Player

- [7] DISC 1 – 5 buttons (42, 46, 50, 52, 54)
- [8] Disc tray
- [9] ▲◀◀/▶▶ (AMS*) buttons (46, 52, 54, 88, 96)
- [10] ▲◀◀/▶▶ (manual search) buttons (48, 88, 96)
- [11] TIME button (44)
- [12] FADER button (94)
- [13] EDIT/TIME FADE button (88, 94)
- [14] CHECK (program check) button (54)
- [15] CLEAR (program clear) button (56)
- [16] ▲ OPEN/CLOSE button (42)
- [17] DISC SKIP button (42, 46)
- [18] ■ (stop) button (42)
- [19] ■■ (pause) button (42)
- [20] ▶ (play) button (42)
- [21] PLAY MODE button
- PROGRAM button (52, 86)
- SHUFFLE button (50)
- CONTINUE button (42)
- [22] MUSIC SCAN button (58)
- [23] REPEAT button (60)
- [24] Display window

* AMS is the abbreviation of Automatic Music Sensor.

SECTION 2

ADJUSTMENTS

2-1. MECHANICAL ADJUSTMENTS

Precautions:

1. Clean the following parts with a denatured-alcohol-moistened swab;

record/playback/erase head	
pinch roller	rubber belts
capstan	idler
2. Demagnetize the record/playback head with a head demagnetizer.
(Head demagnetizer do not approach for the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed in the rated power supply voltage unless otherwise noted.

Torque Measurement

Torque	Torque meter	Meter reading
FWD	CQ-102C	35 to 60g·cm (0.49 to 0.83 oz·inch)
FWD Back tension	CQ-102C	2 to 6g·cm (0.03 to 0.08 oz·inch)
REV	CQ-102RC	35 to 60g·cm (0.49 to 0.83 oz·inch)
REV Back tension	CQ-102RC	2 to 6g·cm (0.03 to 0.08 oz·inch)
FF, REW	CQ-201B	70 to 110g·cm (0.98 to 1.52 oz·inch)

Chuckling Arm Height Adjustment

This Adjustment should be performed after the electrical adjustment and on replacing adjusting screw, magnet, or chucking pulley.

Procedure :

1. Set disc (YEDS-18) to the optical pick-up block. (Fig. A)
2. Adjust the bracket (press pulley) to the center of the magnet with adjusting screw. (Fig. B)

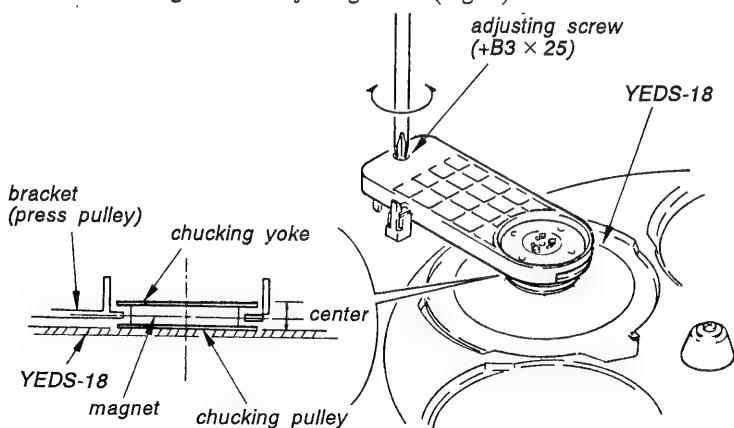


Fig. B

Fig. A

2-2. ELECTRICAL ADJUSTMENTS

0 dB=0.775 V (AF)

Precautions:

CASSETTE DECK SECTION

1. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
 2. Do not use a magnetized screwdriver for the adjustments.
 3. After the adjustments, apply suitable locking compound to the parts adjusted.
 4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
 5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
 6. The adjustments should be performed for both L-CH and R-CH.
- Switches and controls should be set as follows unless otherwise specified.

DOLBY NR switch : OFF
TAPE : TYPE I

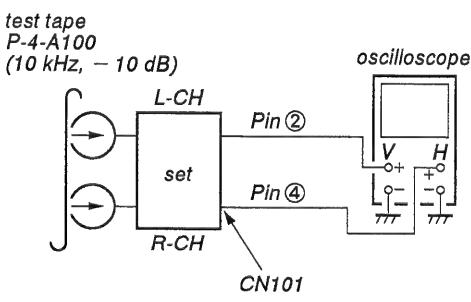
Type	Signal	Used for
P-4-A100	6.3kHz, -10dB	Azimuth Adjustment
P-4-L300	315Hz, 0dB	PB Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

Record/Playback Head Azimuth Adjustment

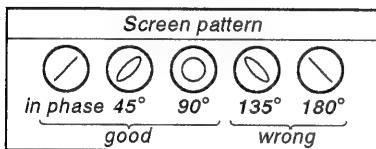
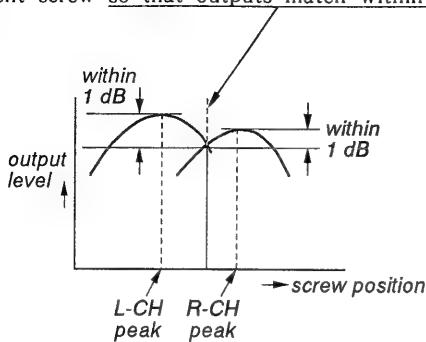
Note : Perform this adjustments for both decks.

Procedure :

1. Mode : FWD playback

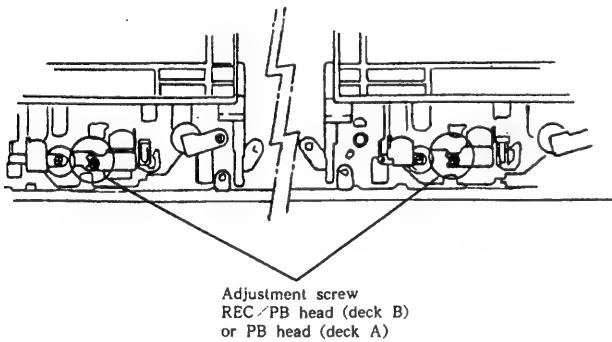


2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.



3. After the adjustments, apply suitable locking compound to the parts adjusted.

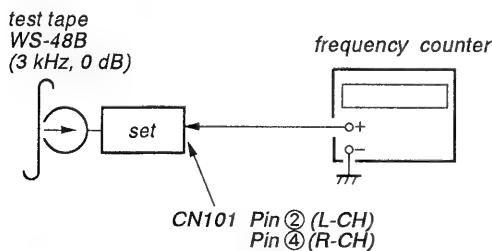
Adjustment Location :



Tape Speed Adjustment. DECK A DECK B

Procedure :

Mode : playback



- High speed adjustment (Must be first Adjustment B deck)
 1. Push HIGH speed button.
 2. Adjust RV71 so that the frequency counter reads $6,000 \pm 30\text{Hz}$.

• NORMAL speed adjustment

1. Push NORMAL speed button.

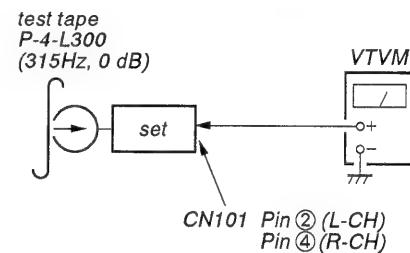
2. Adjust RV72 so that the frequency counter reads $3,000 \pm 15\text{Hz}$.

(See right for Adjusting Parts Location)

Frequency difference between deck A and deck B at the beginning of the tape should be within 1%.

Playback Level Adjustment DECK A DECK B

Procedure :



Mode : FWD playback

DECK-A side RV11 (L-CH), RV21 (R-CH)

DECK-B side RV11 (L-CH), RV21 (R-CH)

so that the limits below are satisfied.

Adjustable limits :

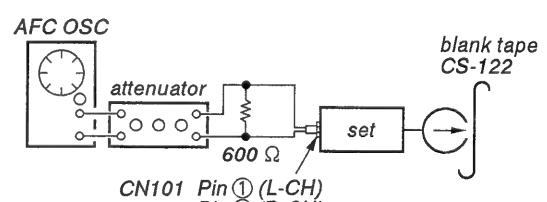
CN101 level : $-7.7 \pm 0.5\text{dB}$ (0.48 – 0.67V)

level difference between the channels : within 1.0dB
(See right for Adjusting Parts Location)

Record BIAS Current Adjustment DECK B

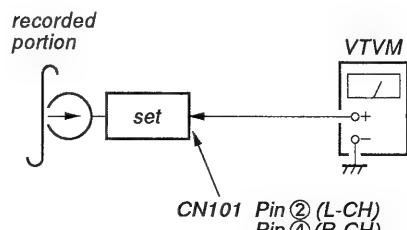
Procedure :

1. Mode : record



1) 315 Hz
2) 10 kHz – 30 dB (0.0245 V)

2. Mode : Playback



Playback the signal recorder in step 1.

Confirm that the 10kHz playback output is $0 \pm 0.5\text{dB}$ relative to the 315Hz output. If necessary, adjust RV12 (L-CH), RV22 (R-CH) and repeat the steps given above.

(See right for Adjusting Parts Location)

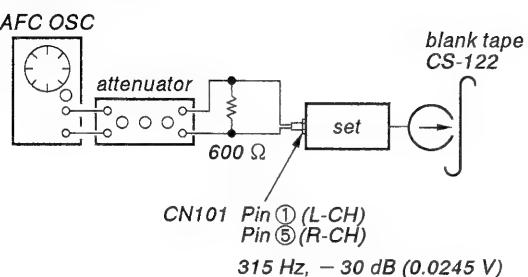
Record Level Adjustment DECK B

Setting :

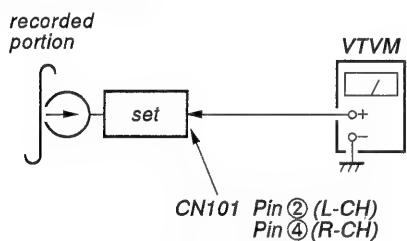
TAPE : TYPE I

Procedure :

- Mode : record



- Mode : playback



- Playback the signal recorded in step 1.

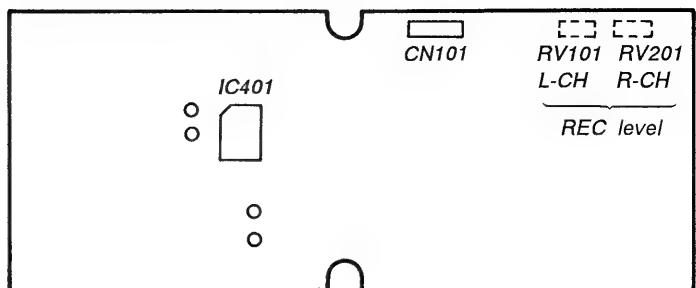
Confirm that the signal level is within the adjustment limits below. If necessary, adjust RV101 (L-CH), RV201 (R-CH) and repeat the step 1-3.

Adjustable : $-30.0 \pm 0.5\text{dB}$ (0.0231 – 0.026V)

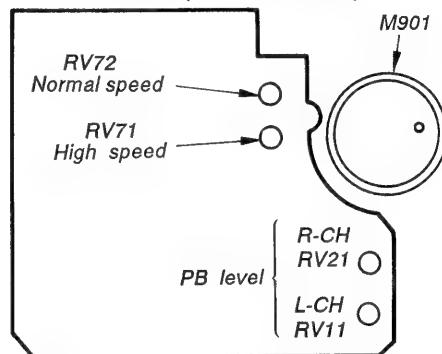
(See right for Adjusting Parts Location)

• Adjusting Parts Location

TC MAIN BOARD (Conductor Side)



AUDIO BOARD (Conductor Side)

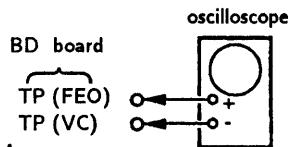


CD SECTION

Note :

1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than $10M\Omega$ impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

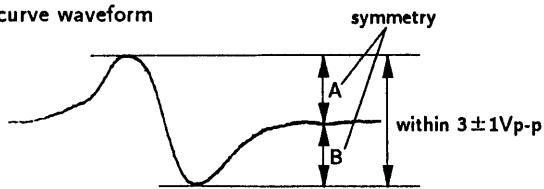
S Curve Check



Procedure :

1. Connect oscilloscope to test point TP (FEO) on BD board.
2. Connect between test point TP (FES) and TP (VC) by lead wire.
3. Turned Power switch on and actuate the focus serch. (actuate the focus serch when disc table is moving in and out.)
4. Check the oscilloscope waveform (S curve) is symmetrical between A and B. And confirm peak to peak level within $3 \pm 1V_{p-p}$.

S curve waveform

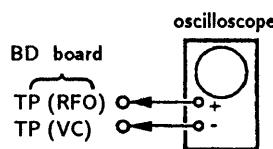


5. After check, remove the lead wire connected in step 2.

Note :

- Try to mesure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.
- Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check

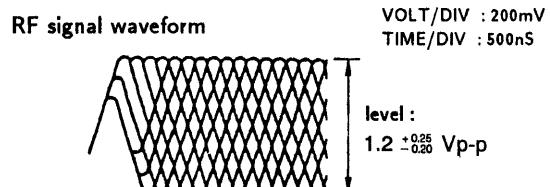


Procedure :

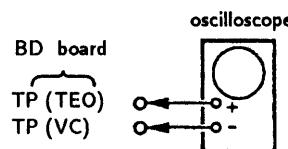
1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note :

Clear RF signal waveform means that the shape “◇” can be clearly distinguished at the center of the waveform.



E-F Balance Check



Procedure :

1. Connect test point TP (TEST) to ground and TP (TES) to TP (VC) with lead wire.
2. Connect oscilloscope to test point TP (TEO) on BD board.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the osilloscope waveform is symmetrical on the top and bottom in relation to 0V, and check this level.

Traverse oscilloscope

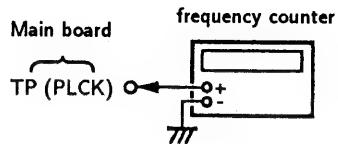


6. Remove the lead wire connected in step 1.

RF PLL Free-run Frequency Check

Procedure :

1. Connect frequency counter to test point (PLCK) with lead wire.



2. Turn Power switch on.
3. Confirm that reading on frequency counter is
4. 3218MHz.

Focus/Tracking Gain

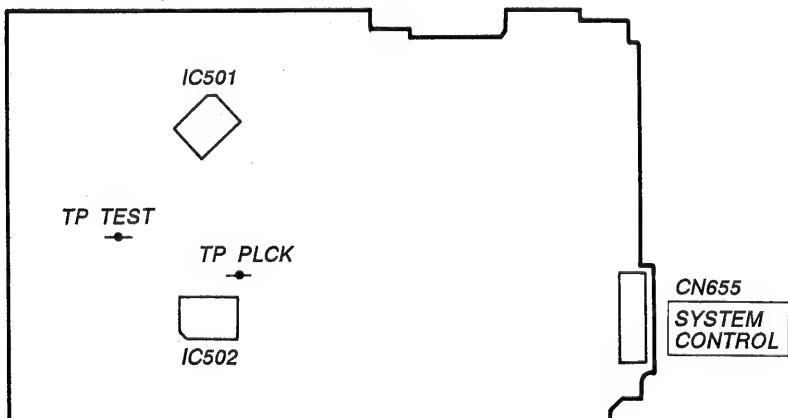
This gain has a margin, so even if it is slightly off. There is no problem.

Therefore, do not perform, this adjustment.

Please note that it should be fixed to mechanical center position when you moved and do not know original position.

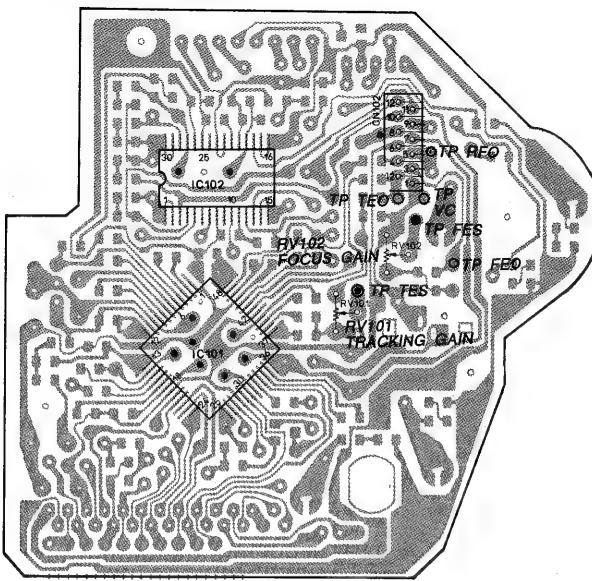
Adjustment Location ;

MAIN BOARD (Conductor Side)



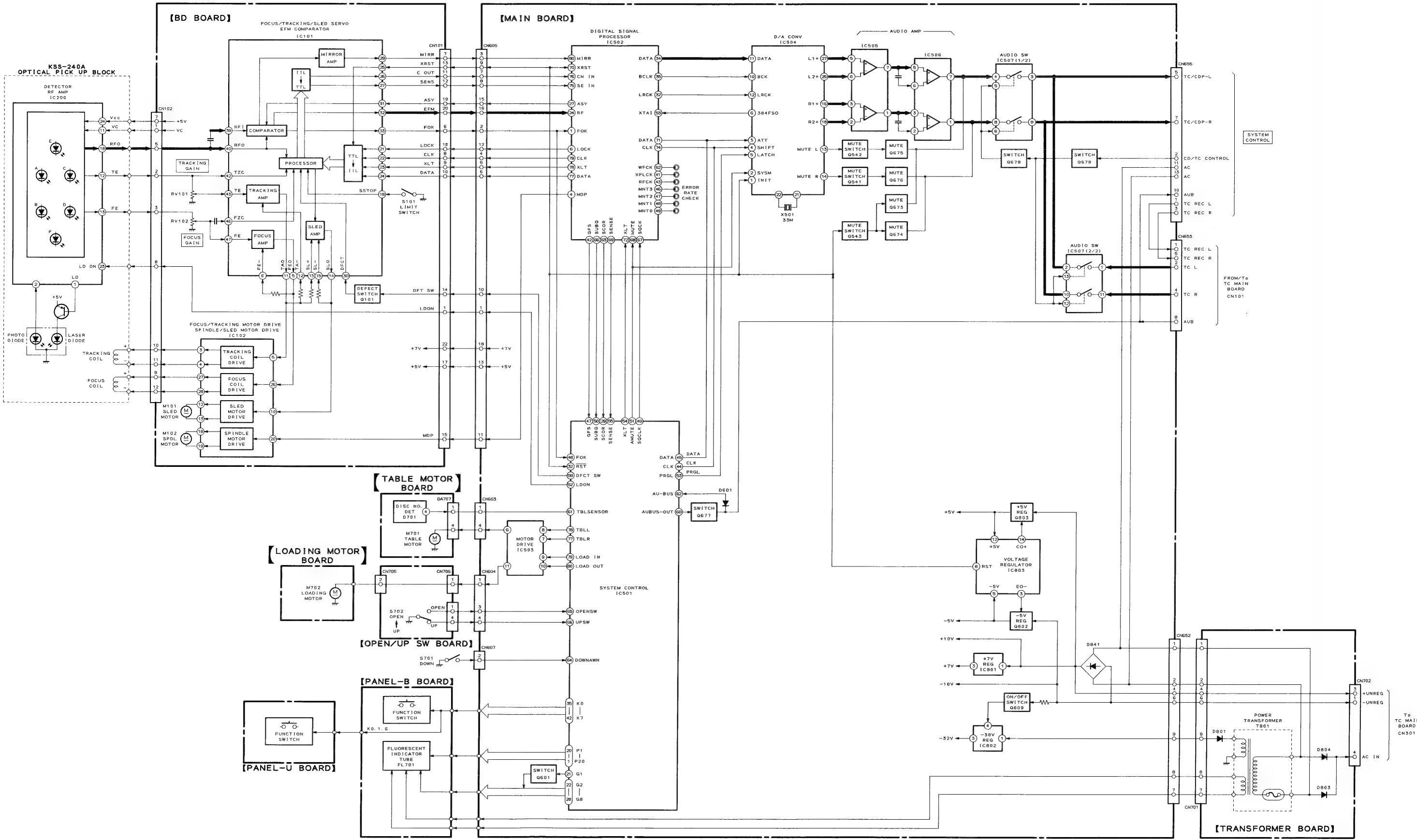
Adjustment Locations : [BD board]

— conductor side —

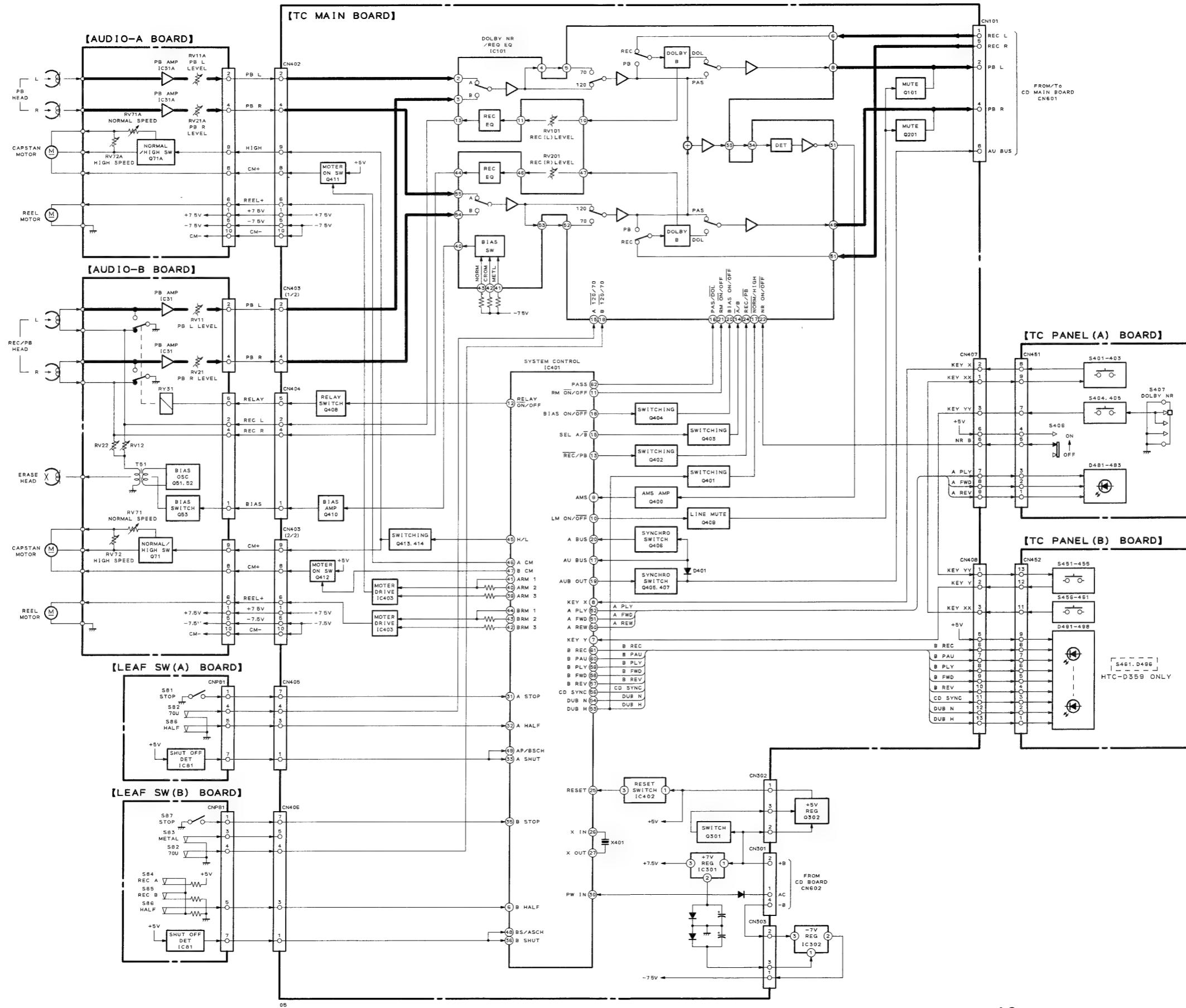


SECTION 3 DIAGRAMS

3-1. CD SECTION BLOCK DIAGRAM



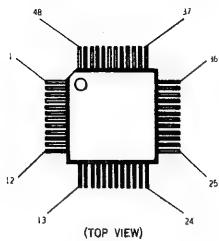
3-2. CASSETTE DECK SECTION BLOCK DIAGRAM



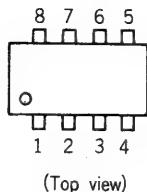
HTC-D259/D359

- Semiconductor Lead Layouts

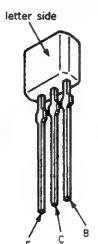
CXA1372AQ



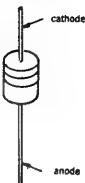
M5218AP



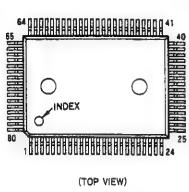
**2SA1175-HFE
2SC3623A-LK**



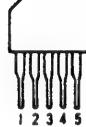
**HZS7C2L
UZL-7L1
UZL-7L2
UZ-2.7BS
11ES2**



**CXD2500BQ
CXP50120-024Q**



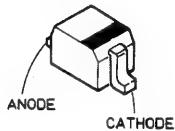
M5293L



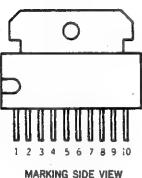
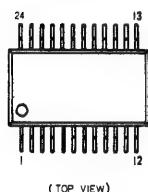
2SB1013-4



MA110



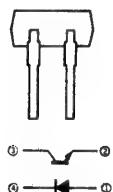
CXD2565M



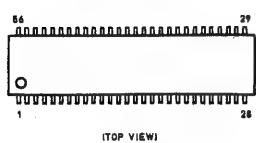
2SB1094-LK



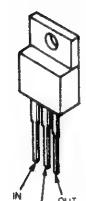
NJL5165K-B



HA12171NT



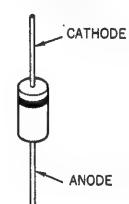
TA7272P



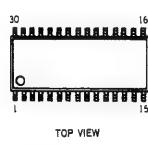
2SD774-34



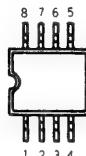
1N4148M



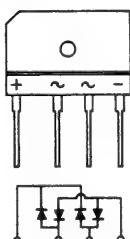
LA6532M



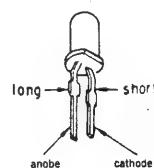
μ PC4570G2



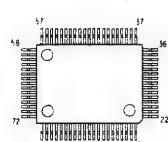
D2SB20



**SEL2210S-CD
SEL2410E-TH10**



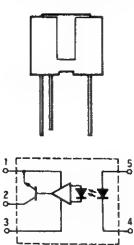
M50964-256FP



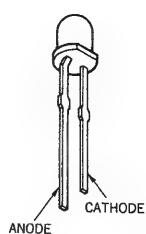
**DTA114ES
DTA144ES
DTC144ES
2SC2603-EF**



GP-1A521



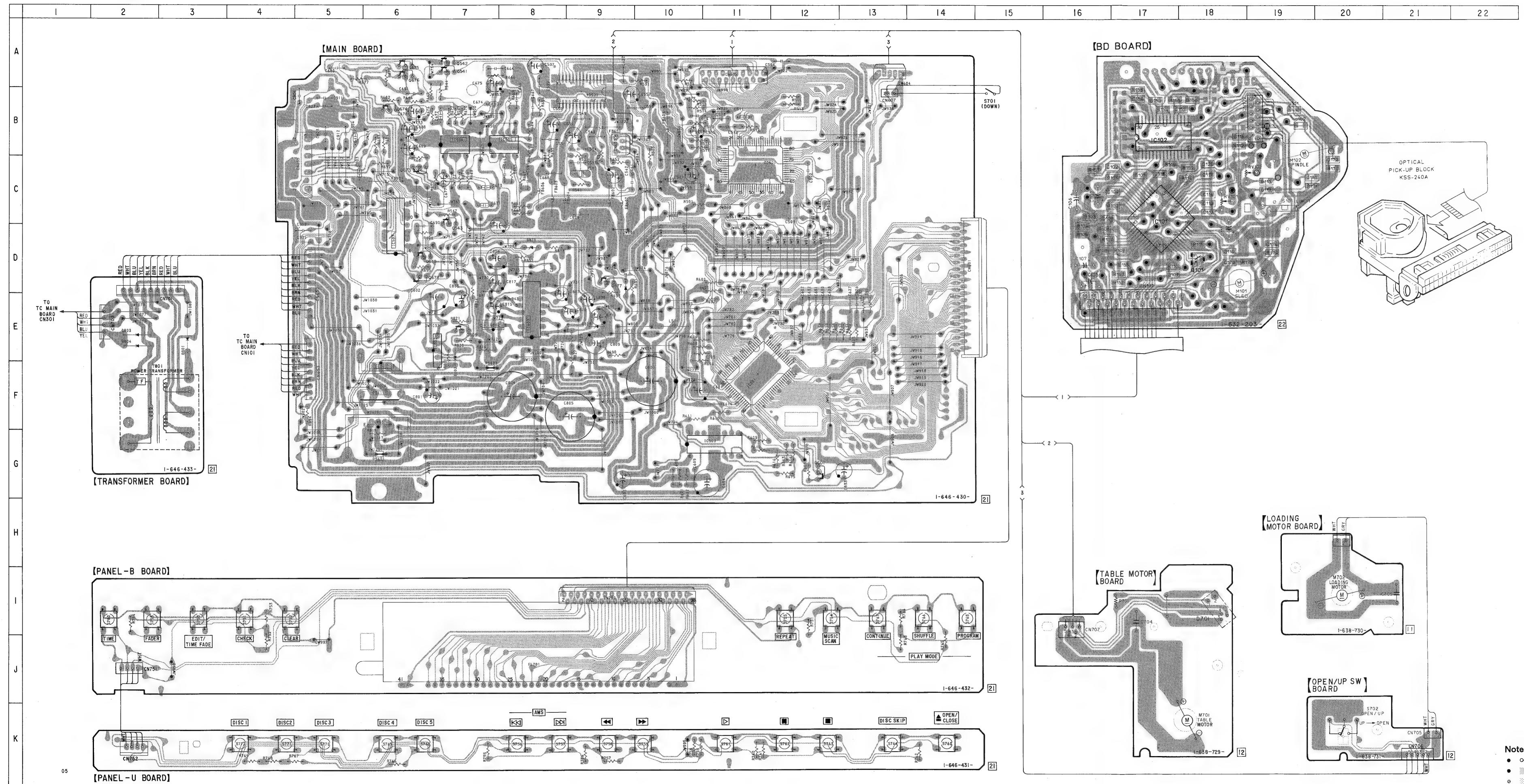
SEL2810A



M51943BSL



3-3. CD SECTION PRINTED WIRING BOARDS



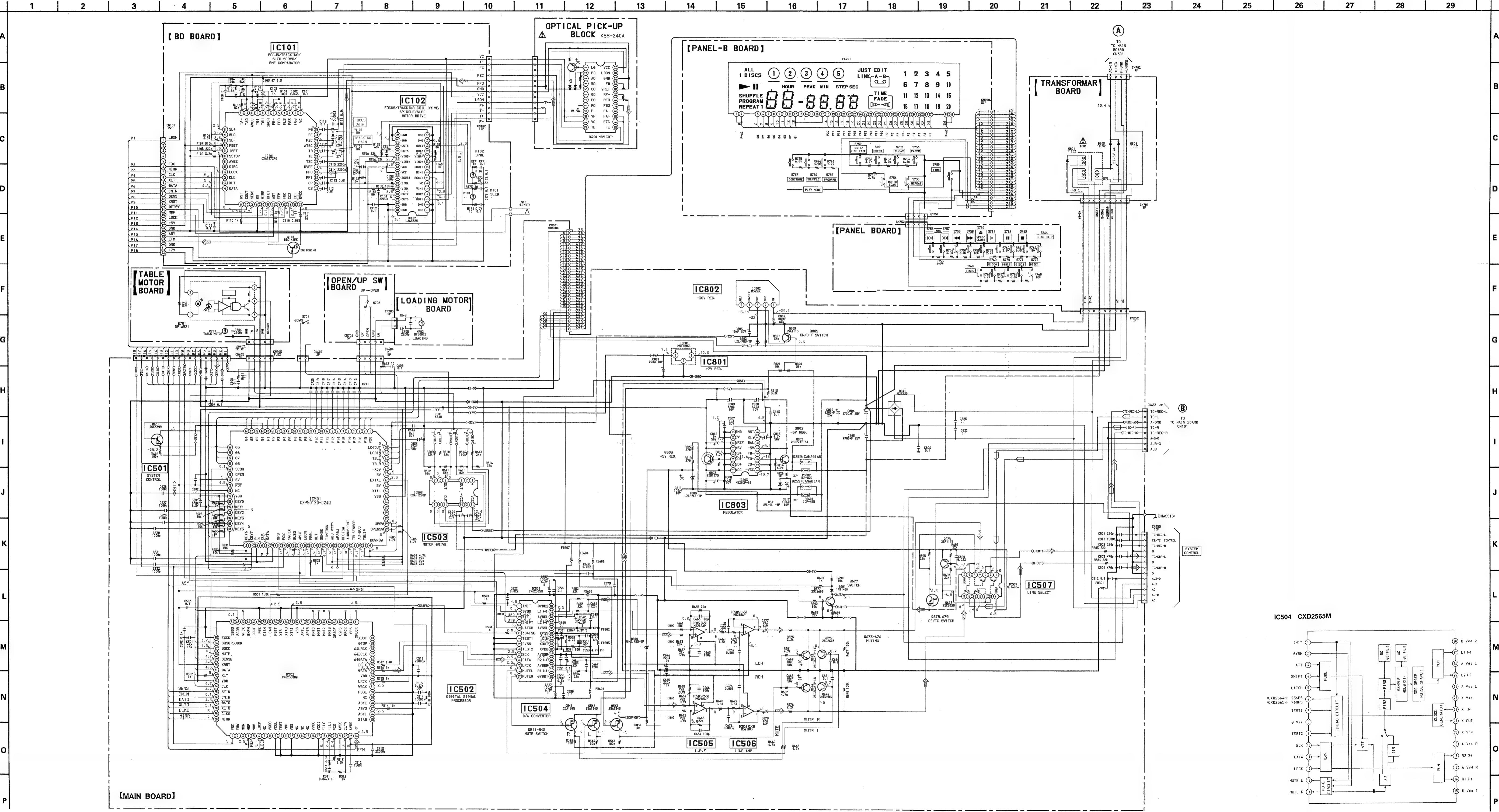
• Semiconductor Location

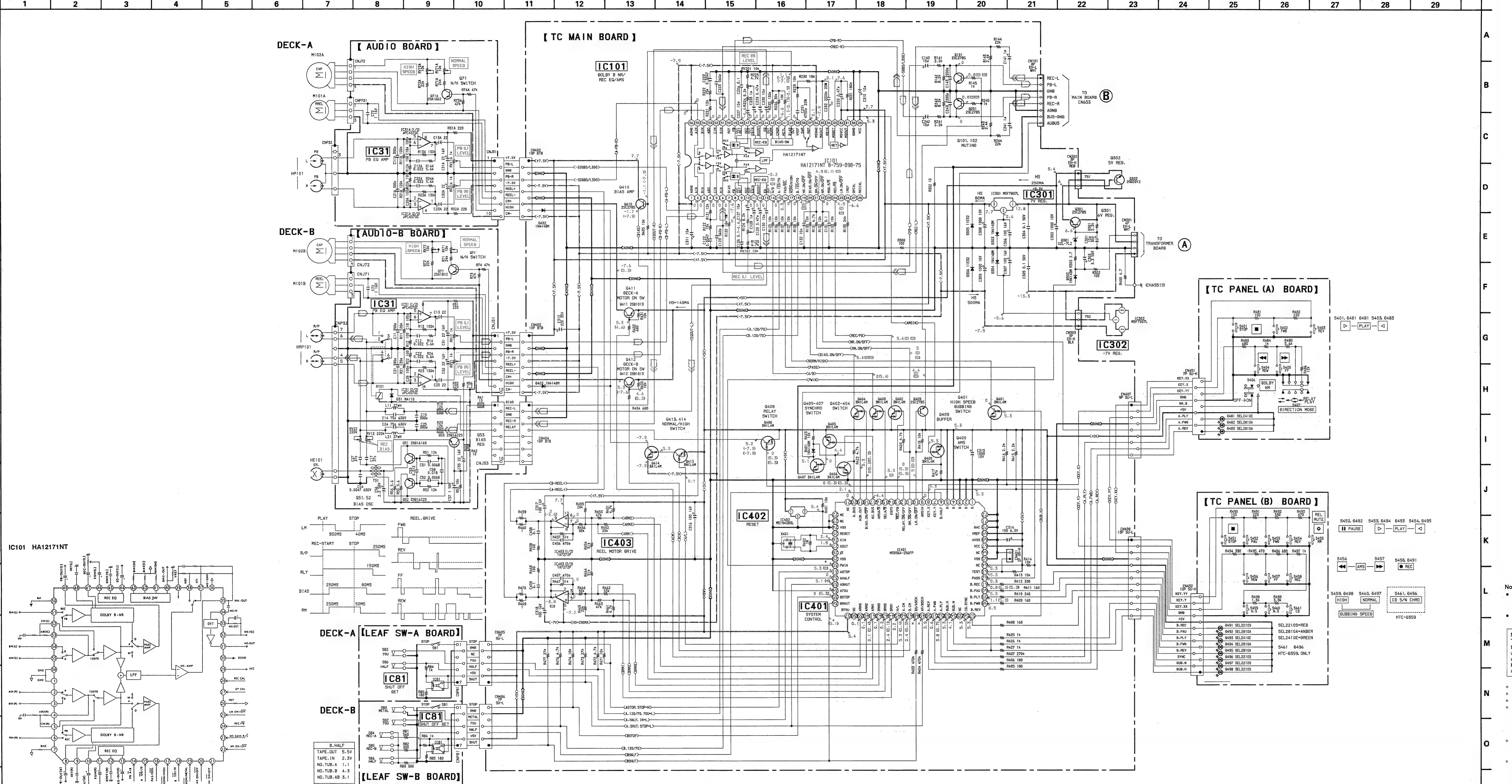
Ref. No.	Location
D601	D-9
D701	I-18
D801	E-3
D802	E-7
D803	E-2
D804	E-2
D808	E-9
D810	E-8
D811	D-7
D841	F-6
IC101	C-17
IC102	B-17
IC501	F-11
IC502	C-11
IC503	G-11
IC504	B-9
IC505	B-8
IC506	B-7
IC507	D-6
IC801	F-6
IC802	E-7
IC803	E-8

Note on Printed Wiring Board:

- : parts extracted from the component side.
- : Pattern from the side which enables seeing.
- ◎ : Pattern of the rear side.

3-4. CD SECTION SCHEMATIC DIAGRAM





Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: $\mu\mu F$ 50 pV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4 W$ or less unless otherwise specified.

Note:

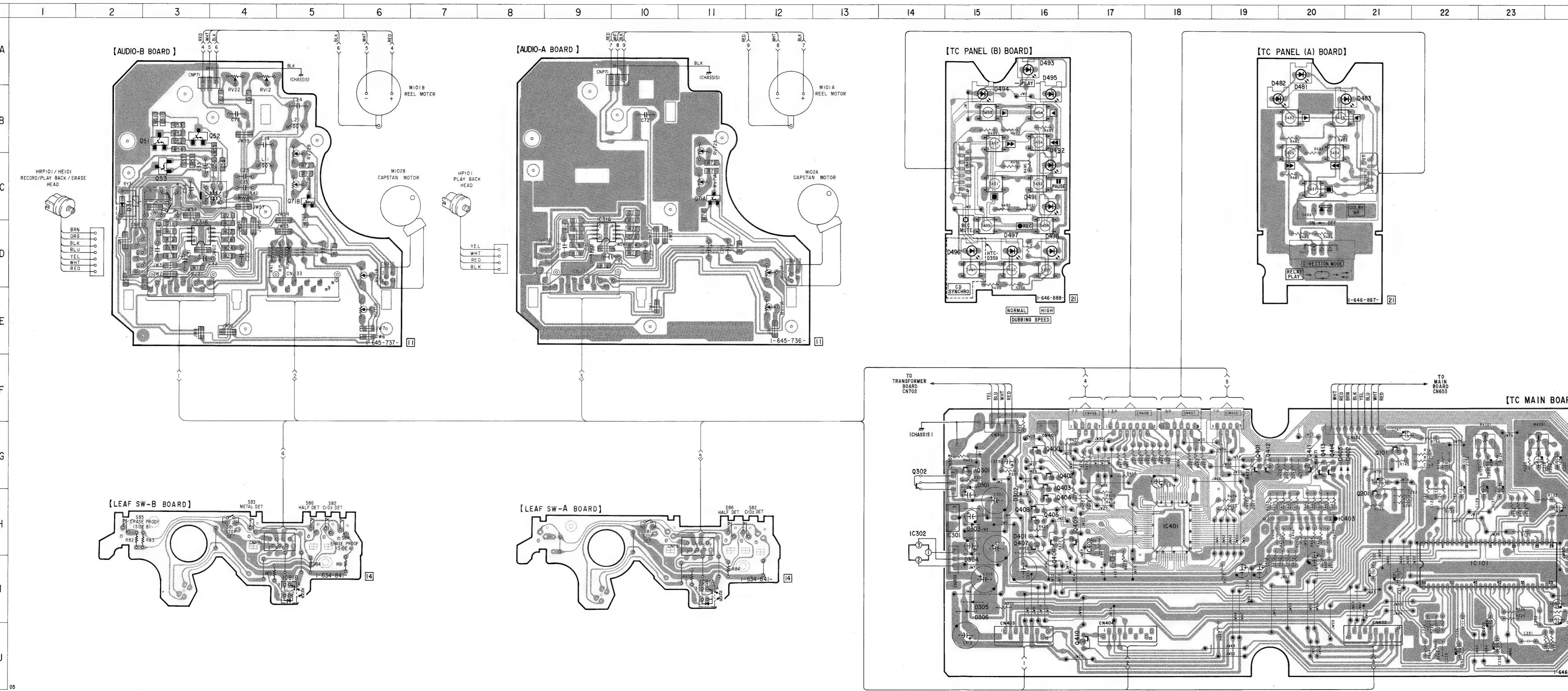
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

- $\text{---} \text{---}$: B + Line.
- $\text{---} \text{---}$: B - Line.
- \square : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no signal (detuned) conditions.
- no mark : REC (COMMON)
- () : DECK A PB
- <> : DECK B PB
- Voltages are taken with a $10 M\Omega$ voltmeter. Voltage variations may be noted due to normal production tolerances.
- Signal path.
- \Rightarrow : CD
- \square : PB (DECK B)
- \square : REC (DECK B)

3-6. CASSETTE DECK SECTION PRINTED WIRING BOARDS

• See page 13 for Semiconductor Lead Layouts.

HTC-D259/D359



• Semiconductor Location

Ref. No.	Location
D31	C-2
D301	G-15
D302	H-16
D303	H-16
D304	H-15
D305	I-15
D306	I-15
D401	H-16
D402	G-21
D403	G-20
D481	A-20
D482	B-19
D483	B-21
D491	C-16
D492	C-16
D493	A-16
D494	B-15
D495	B-16
D496	D-15
D497	D-16
D498	D-16
IC31A	D-9
IC31B	D-3
IC101	I-22
IC301	H-15
IC302	H-14
IC401	H-18
IC402	H-17
IC403	H-20
Q51	B-3
Q52	B-3
Q53	C-3
Q71A	C-11
Q71B	C-5
Q101	G-21
Q201	H-21
Q301	G-15
Q302	G-14
Q400	G-16
Q401	G-19
Q402	G-16
Q403	G-16
Q404	H-16
Q405	H-16
Q406	H-16
Q407	H-16
Q408	H-16
Q409	H-16
Q410	J-17
Q411	G-20
Q412	G-19
Q413	G-20
Q414	G-20

Note on Printed Wiring Board:
• — : parts extracted from the component side.

SECTION 4

EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.

- Color Indication of Appearance Parts Example:

KNOB, BALANCE (WHITE) . . . (RED)
 ↑ ↑
 Parts Color Cabinet's Color

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- The mechanical parts with no reference number in the exploded views are not supplied.

- Hardware (# mark) list is given in the last of this parts list.

- Abbreviations

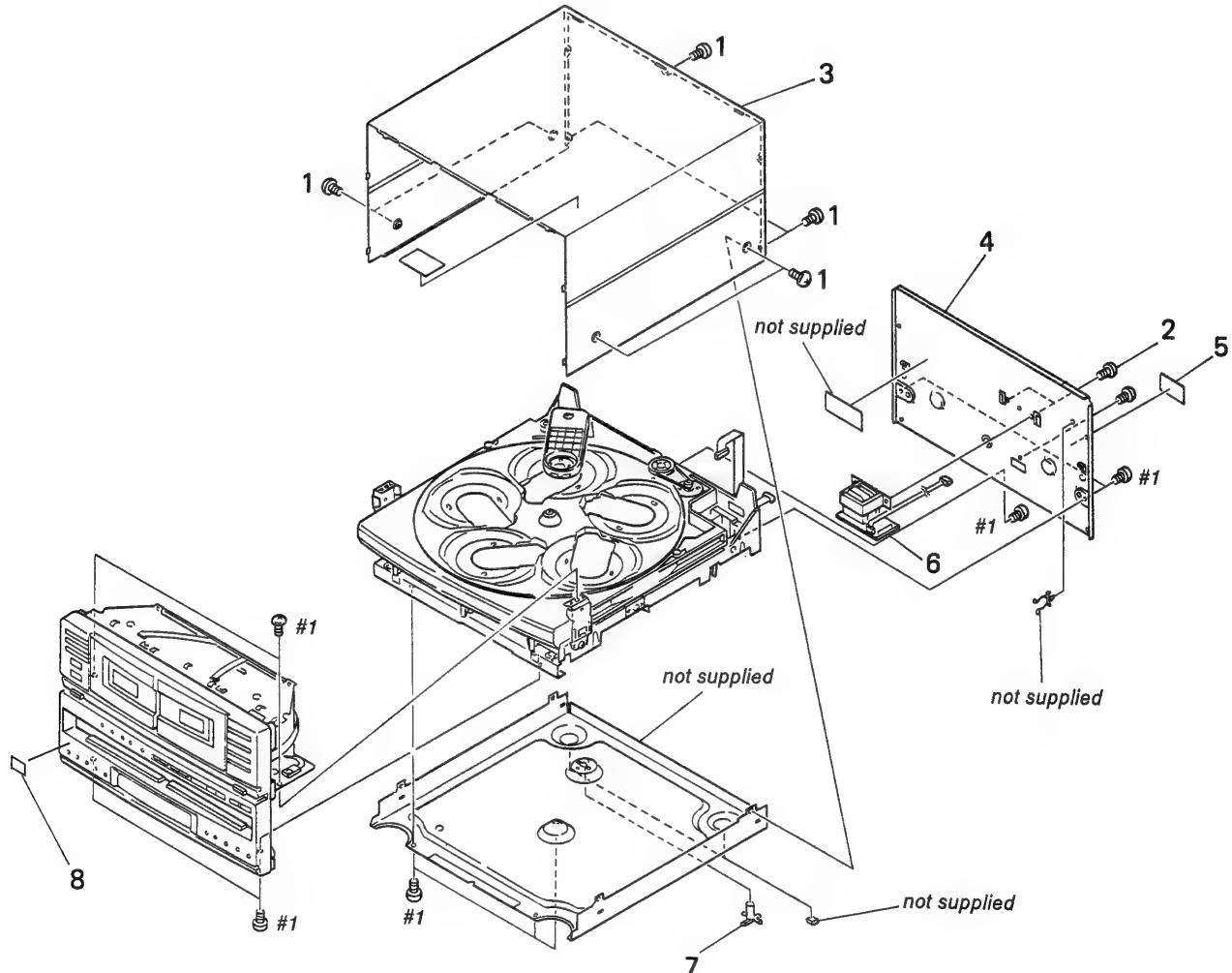
AUS: Australian Model

IT: Italian Model

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
 Replace only with part number specified.

Les composants identifiés par une marque \triangle sont critiques pour la sécurité.
 Ne les remplacer que par une pièce portant le numéro spécifié.

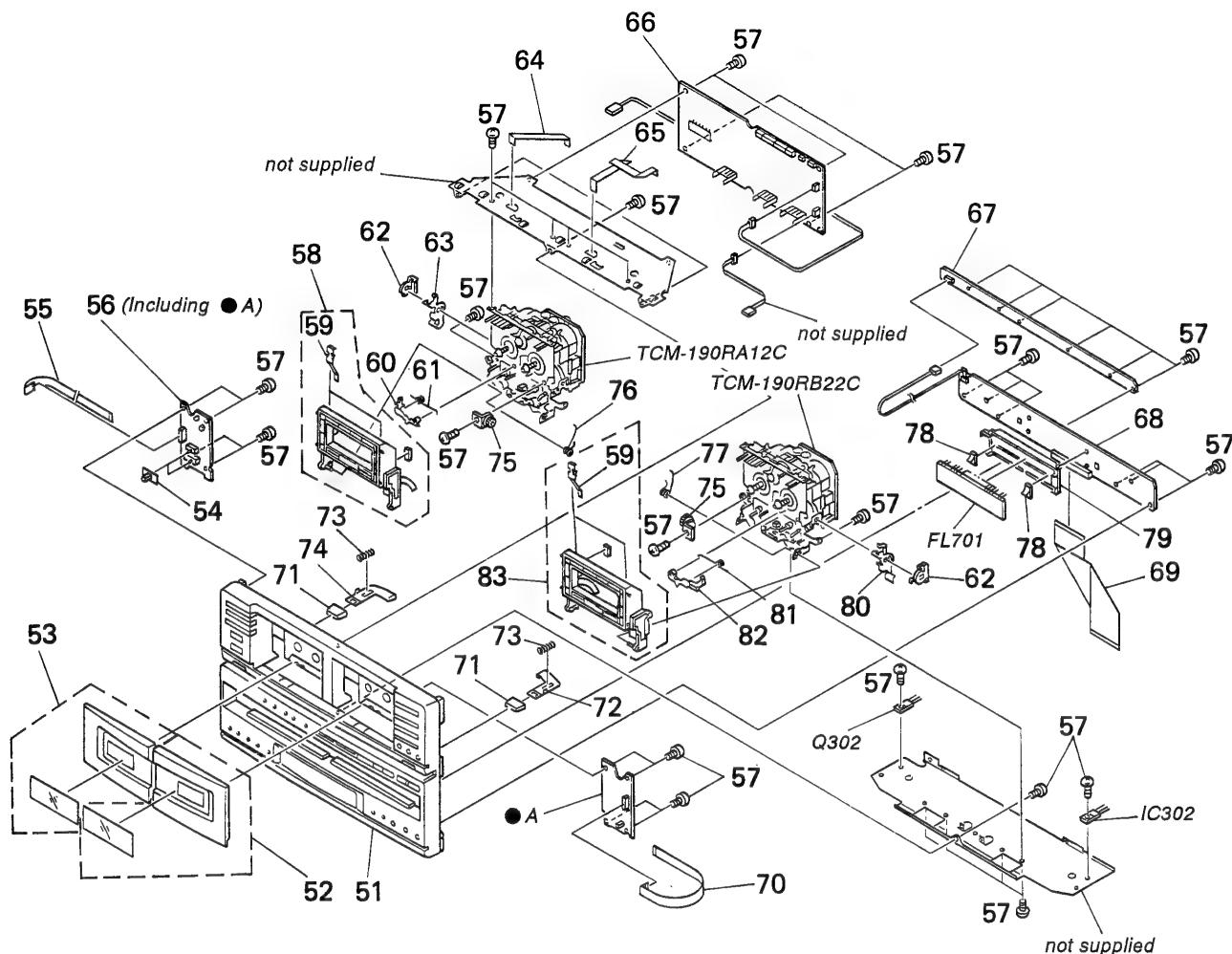
(1) CASE SECTION



Ref. No.	Part No.	Description	Remark
1	3-363-099-01	SCREW (CASE 3 TP2) (D359)	
1	3-704-366-01	SCREW (CASE) (M3X8) (D259)	
2	3-704-515-31	SCREW (BV/RING)	
* 3	4-955-795-31	CASE	
* 4	4-955-832-01	PANEL, BACK (D259)	
* 4	4-955-832-11	PANEL, BACK (D359)	

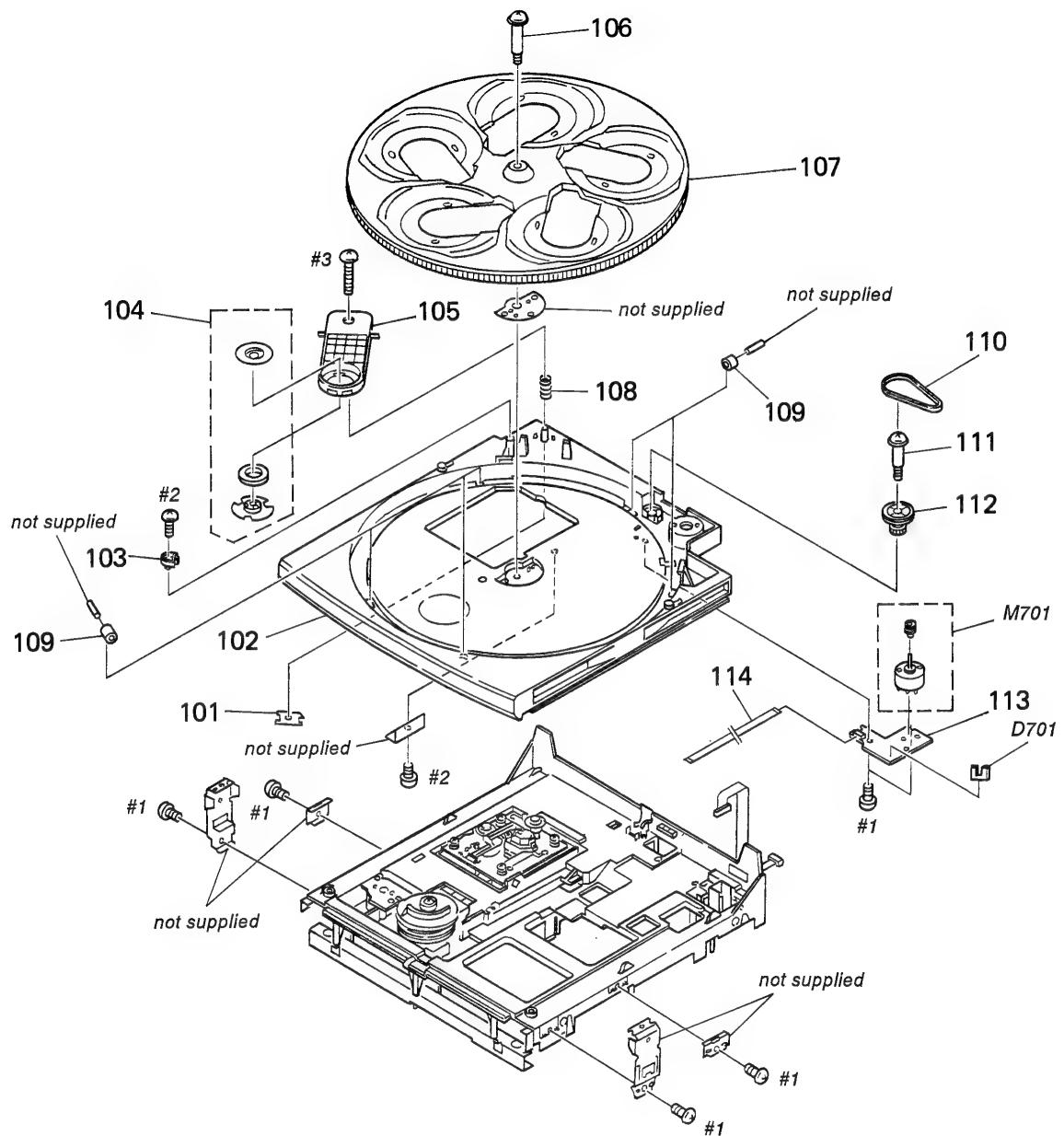
Ref. No.	Part No.	Description	Remark
* 5	4-941-548-01	LABEL, CLASS 1 (D259: AEP, UK, E, IT, AUS, D359)	
* 6	1-646-433-21	TRANSFORMER BOARD	
7	4-937-945-01	PLATE (TRANSPORT), LOCK	
* 8	3-703-713-41	STICKER, SONY SYMBOL (10) (D359)	

(2) FRONT PANEL ASSEMBLY SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	X-4943-306-1	PANEL ASSY, FRONT (D259)		69	1-751-055-31	WIRE, FLAT TYPE (37 CORE) (D259)	
51	X-4943-307-1	PANEL ASSY, FRONT (D359)		70	1-690-589-31	WIRE, FLAT TYPE (13 CORE) (D359)	
52	X-4943-311-1	LID (B) ASSY, CASSETTE		70	1-751-210-11	WIRE, FLAT TYPE (13 CORE) (D259)	
53	X-4943-310-1	LID (A) ASSY, CASSETTE		71	4-935-355-41	BUTTON (EJECT)	
54	4-948-273-01	KNOB, SLIDE		* 72	4-955-821-11	LEVER (R), EJECT	
55	1-751-209-11	WIRE, FLAT TYPE (9 CORE) (D259)		73	3-500-131-00	SPRING, COMPRESSION	
* 56	A-4357-003-A	SW BOARD, COMPLETE (D259)		* 74	4-955-820-11	LEVER (L), EJECT	
* 56	A-4357-196-A	SW BOARD, COMPLETE (D359)		75	3-354-963-01	DAMPER	
57	4-951-620-01	SCREW (2.6X8), +BVTP		76	3-354-959-01	SPRING (LOADING L), TORSION	
58	X-3340-194-1	HOLDER (L) ASSY, CASSETTE		77	3-354-960-01	SPRING (LOADING R), TORSION	
59	3-308-823-11	SPRING		* 78	4-949-935-31	CUSHION (FL)	
60	3-354-955-01	LEVER (EJ SAFTY LEVER L)		* 79	4-955-792-11	HOLDER (5M), FL TUBE	
61	3-354-961-01	SPRING (EJ SAFTY SPRING L)		* 80	3-354-954-01	LEVER (LOCK LEVER R)	
62	3-354-957-01	JOINT (LOCK LEVER)		81	3-354-962-01	SPRING (EJ SAFTY SPRING R)	
* 63	3-354-953-01	LEVER (LOCK LEVER L)		82	3-354-956-01	LEVER (EJ SAFTY LEVER R)	
64	1-590-574-11	WIRE, FLAT TYPE (7 CORE)		83	X-3340-195-1	HOLDER (R) ASSY, CASSETTE	
65	1-590-485-11	WIRE, FLAT TYPE (7 CORE)		FL701	1-519-721-31	INDICATOR TUBE, FLUORESCENT	
* 66	A-4356-892-A	TC MAIN BOARD, COMPLETE		IC302	8-759-604-95	IC M5F79M07L	
* 67	1-646-431-21	PANEL-U BOARD		Q302	8-729-209-15	TRANSISTOR 2SD2012	
* 68	1-646-432-21	PANEL-B BOARD					

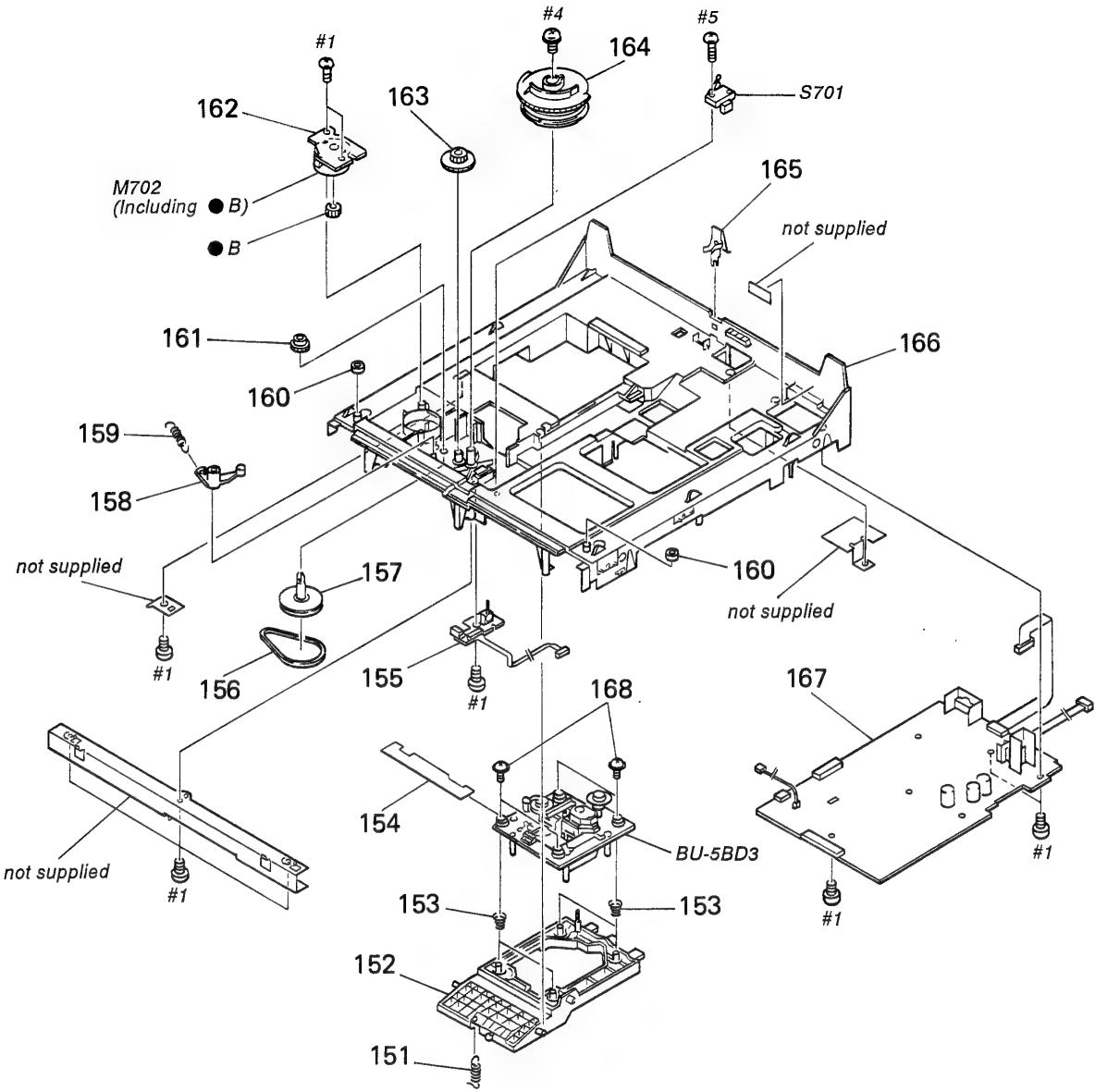
(3) TURNTABLE ASSEMBLY SECTION



Ref. No.	Part No.	Description	Remark
* 101	4-926-388-01	BRACKET (ADJUSTMENT)	
102	4-955-787-11	TABLE, DISK	
* 103	4-949-226-11	PLATE, LOCK	
* 104	1-452-538-11	MAGNET	
* 105	4-930-506-02	BRACKET (PRESS PULLEY)	
106	4-926-384-01	SCREW, STEP	
* 107	4-926-383-01	TABLE (B), DISK	
108	4-926-395-01	SPRING, COMPRESSION	

Ref. No.	Part No.	Description	Remark
109	X-4924-457-1	ROLLER ASSY	
110	4-926-399-01	BELT	
111	4-923-597-01	SCREW, STEP	
112	4-934-380-01	PULLEY (R)	
* 113	1-638-729-11	TABLE MOTOR BOARD	
114	1-590-849-11	WIRE, FLAT TYPE (5 CORE)	
D701	8-719-970-19	DIODE GP-1A521	
M701	A-4604-585-A	MOTOR ASSY, ROTARY	

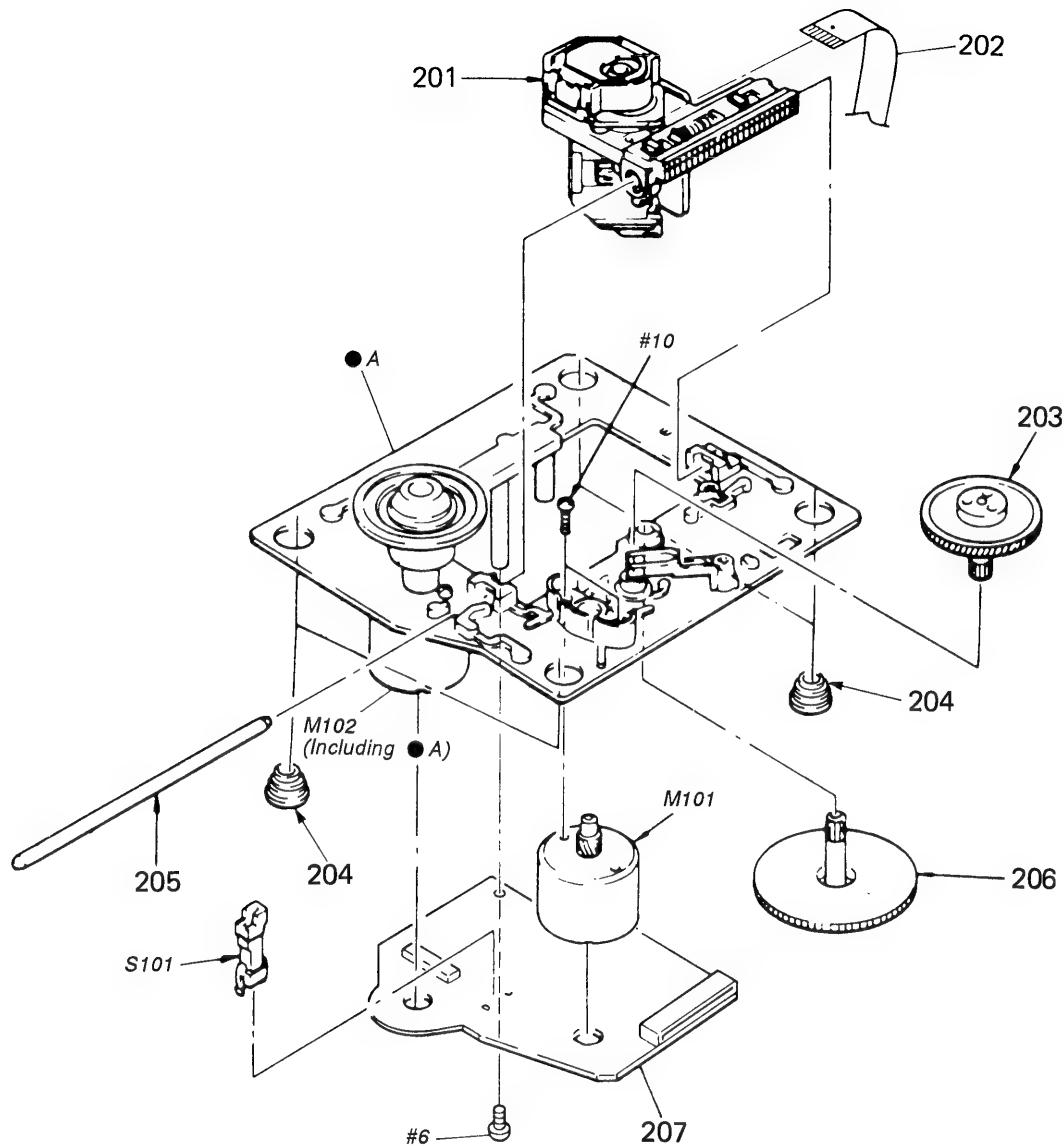
(4) CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
151	4-937-911-01	SPRING, TENSION	
* 152	4-934-373-01	BRACKET (BU)	
153	4-949-385-01	SPRING (D), COIL	
154	1-537-476-11	JUMPER, FILM (WITH TERMINAL)	
* 155	1-638-731-11	OPEN/UP SW BOARD	
156	4-944-490-01	BELT (TIMING)	
157	X-4941-529-1	PULLEY ASSY	
158	4-917-519-01	LEVER, SET	
159	4-924-412-01	SPRING (B), TENSION	
* 160	4-951-619-01	CUSHION (A)	
161	4-934-375-01	GEAR (LOADING B)	

Ref. No.	Part No.	Description	Remark
* 162	1-638-730-11	LOADING MOTOR BOARD	
163	4-934-381-01	GEAR (LOADING C)	
164	4-934-391-01	GEAR (LOADING A)	
* 165	4-943-996-01	SPRING, LEAF	
* 166	4-943-997-01	CHASSIS	
* 167	A-4356-887-A	MAIN BOARD, COMPLETE (EXCEPT D259:Canadian)	
* 167	A-4360-507-A	MAIN BOARD, COMPLETE (D259:Canadian)	
168	4-933-134-01	SCREW (+PTPWH M2. 6X6)	
S701	1-572-713-11	SWITCH, PUSH (WITH CONNECTOR)	
M702	A-4604-834-A	MOTOR ASSY, LOADING	

(5) OPTICAL PICK-UP BLOCK ASSEMBLY (BU-5BD3)



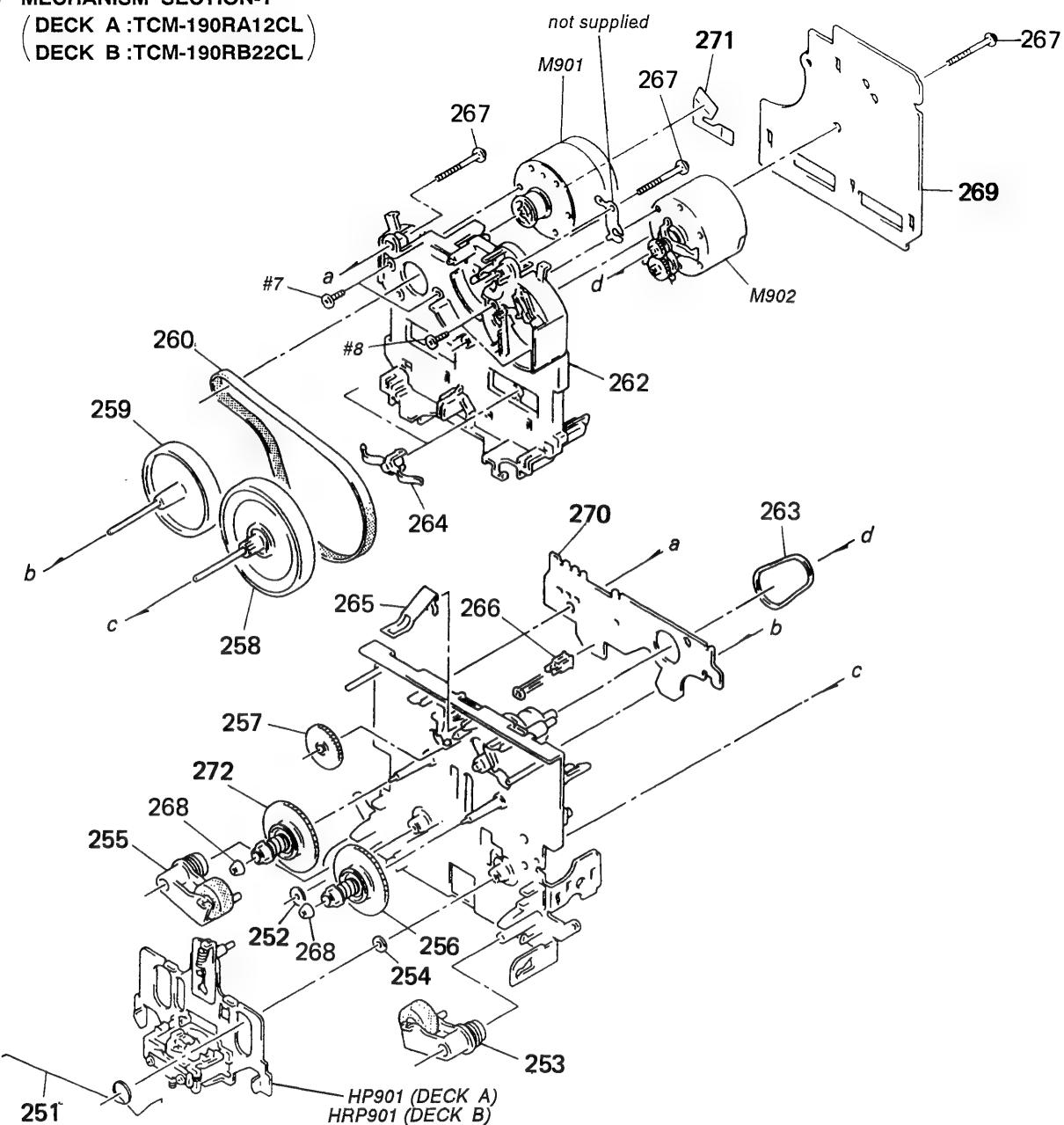
Ref. No.	Part No.	Description	Remark
△201	8-848-144-11	DEVICE, OPTICAL KSS-240A	
202	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
203	4-917-567-01	GEAR (M)	
204	4-933-126-01	INSULATOR (A)	
205	4-917-565-01	SHAFT, SLED	

Ref. No.	Part No.	Description	Remark
206	4-917-564-01	GEAR (P), FLATNESS	
* 207	A-4617-371-A	BD BOARD, COMPLETE	
S101	1-572-085-11	SWITCH, LEAF (LIMIT IN)	
M101	X-4917-504-1	MOTOR ASSY (SLED)	
M102	X-4917-523-3	BASE (OUTSERT) ASSY (SPINDLE MOTOR)	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

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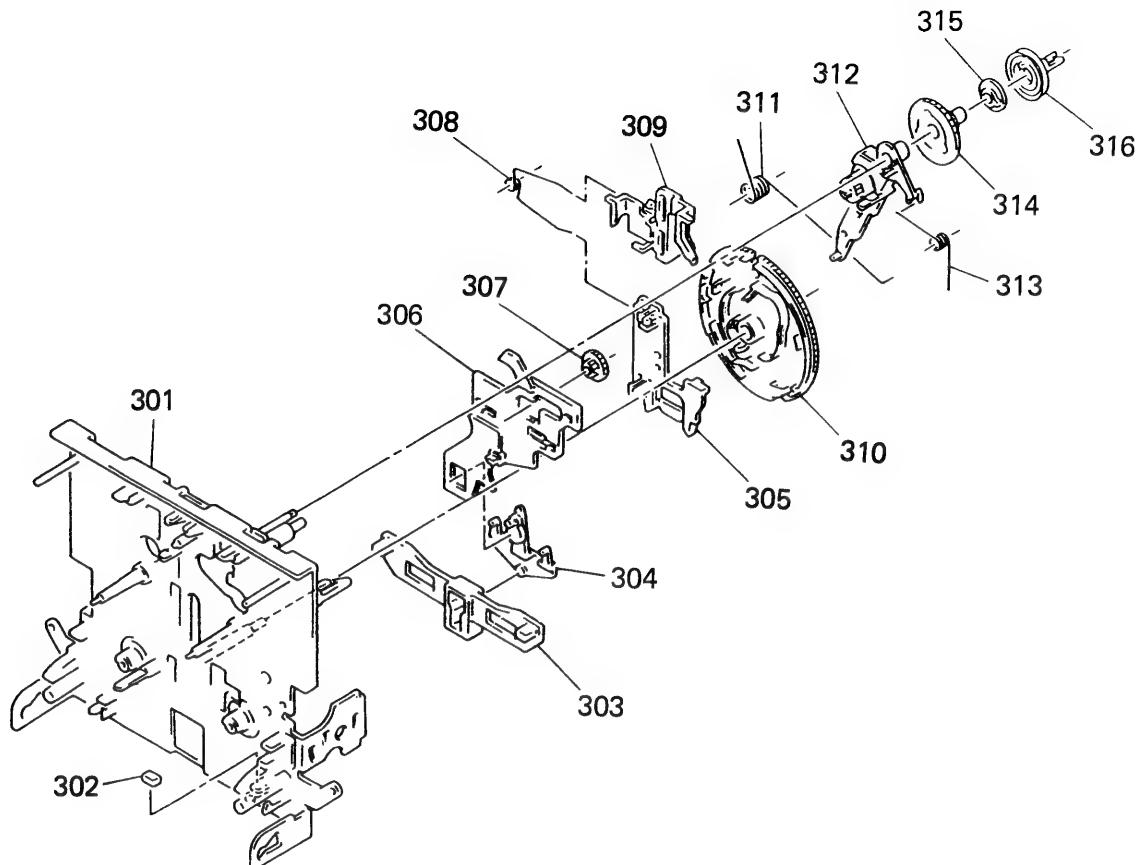
(6) MECHANISM SECTION-1
 (DECK A :TCM-190RA12CL)
 (DECK B :TCM-190RB22CL)



Ref. No.	Part No.	Description	Remark
251	3-359-455-01	SPRING, TORSION	
252	3-356-714-01	WASHER	
253	X-3359-408-1	LEVER (PINCH LEVER FWD) ASSY	
254	3-356-713-01	WASHER	
255	X-3359-409-1	LEVER (PINCH LEVER REV) ASSY	
256	X-3359-404-1	TABLE ASSY, REEL	
257	3-359-424-01	GEAR (REV GEAR)	
258	X-3359-406-1	FLYWHEEL (FWD) ASSY	
259	X-3359-410-1	FLYWHEEL (REV) ASSY	
260	3-359-417-01	BELT (FLAT), CAPSTAN	
* 262	3-359-436-01	BASE (THRUST RETAINER), FITTING	
263	3-359-466-01	BELT (FR), SQUARE	
264	3-575-321-00	RETAINER, THRUST, CAPSTAN	

Ref. No.	Part No.	Description	Remark
265	3-359-430-01	SPRING(CASSETTE RETAINER), LEAF	
266	3-343-419-01	HOLDER (S SENSOR A)	
267	3-359-414-01	SCREW (+PTPWH 2X23)	
268	3-362-308-01	CAP (REEL)	
* 269	A-2006-609-A	AUDIO BOARD, COMPLETE (DECK A)	
* 269	A-2006-610-A	AUDIO BOARD, COMPLETE (DECK B)	
* 270	1-634-841-14	SW-A BOARD	
271	1-638-983-11	PC BOARD, MOTOR FLEXIBLE	
272	X-3362-078-1	TABLE ASSY (B), REEL	
HP901	A-2003-838-A	DECK ASSY, HEAD (DECK A)	
	HRPE901A-2004-190-A	DECK ASSY, HEAD (DECK B)	
M901	X-3359-417-1	MOTOR ASSY (CAPSTAN)	
M902	X-3363-501-1	MOTOR ASSY (REEL)	

(7) MECHANISM SECTION-2
 (DECK A :TCM-190RA12CL)
 (DECK B :TCM-190RB22CL)



Ref. No.	Part No.	Description	Remark
301	X-3359-415-1	CHASSIS ASSY, MECHANICAL	
302	3-359-469-01	SPACER	
* 303	3-359-425-01	SLIDER (REVERSE SLIDER)	
304	3-359-426-01	LEVER (REVERSE LEVER)	
* 305	3-359-427-01	SLIDER (LEVERSE SLIDER)	
* 306	3-359-415-01	SLIDER (TRIGGER SLIDER)	
307	3-359-448-01	GEAR (TRIGGER)	
308	3-359-454-01	SPRING, TORSION	

Ref. No.	Part No.	Description	Remark
309	3-359-429-01	SLIDER (BRAKE PLATE)	
310	3-359-420-01	GEAR (CAM GEAR)	
311	3-359-456-01	SPRING (TRIGGER SPRING), TORSION	
312	X-3359-405-1	LEVER (FR ARM) ASSY	
313	3-359-453-01	SPRING (FR ARM), TORSION	
314	3-359-419-01	GEAR (FR GEAR)	
315	3-359-421-01	CLUTCH (REEL DISK)	
316	3-359-418-01	PULLEY (FR PULLEY)	

SECTION 5

ELECTRICAL PARTS LIST

AUDIO-A
AUDIO-B
NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- **RESISTORS**
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

● Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

● **SEMICONDUCTORS**

In each case, u: μ , for example:

uA ... μ A. uPA ... μ PA.
uPB ... μ PB. uPC ... μ PC. uPD ... μ PD..

● **CAPACITORS**

uF: μ F

When indicating parts by reference number, please include the board.

● **COILS**

uH: μ H

● **Abbreviations**

AUS: Australian Model

IT: Italian Model

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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-2006-609-A	AUDIO-A BOARD, COMPLETE					

< CAPACITOR >							
C11	1-163-131-00	CERAMIC CHIP	390PF	5%	50V		
C12	1-136-157-00	FILM	0.022uF	5%	50V		
C13	1-124-234-00	ELECT	22uF	20%	16V		
C18	1-163-117-00	CERAMIC CHIP	100PF	5%	50V		
C21	1-163-131-00	CERAMIC CHIP	390PF	5%	50V		
C22	1-136-157-00	FILM	0.022uF	5%	50V		
C23	1-124-234-00	ELECT	22uF	20%	16V		
C28	1-163-117-00	CERAMIC CHIP	100PF	5%	50V		
C31	1-124-234-00	ELECT	22uF	20%	16V		
C32	1-124-234-00	ELECT	22uF	20%	16V		
C72	1-124-499-11	ELECT, NONPOLAR 1uF		20%	50V		
< JACK >							
* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD					
* CNJ72	1-580-411-11	SOCKET, CONNECTOR 4P					
< CONNECTOR >							
* CNP32	1-580-772-11	PIN, CONNECTOR (PC BOARD) 4P					
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P					
< IC >							
IC31	8-759-106-02	IC uPC4570G2					
< JUMPER RESISTOR >							
JW1	1-216-295-00	METAL CHIP	0	5%	1/10W		
JW51	1-216-296-00	METAL CHIP	0	5%	1/8W		
JW52	1-216-296-00	METAL CHIP	0	5%	1/8W		
JW53	1-216-296-00	METAL CHIP	0	5%	1/8W		
JW54	1-216-296-00	METAL CHIP	0	5%	1/8W		
< CAPACITOR >							
C11	1-163-131-00	CERAMIC CHIP	390PF	5%	50V		
C12	1-136-157-00	FILM	0.022uF	5%	50V		
C13	1-124-234-00	ELECT	22uF	20%	16V		
C14	1-136-273-91	FILM	75PF	5%	630V		
C15	1-164-080-11	CERAMIC	390PF	10%	50V		
C17	1-163-103-00	CERAMIC CHIP	27PF	5%	50V		

AUDIO-B

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C18	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	JW58	1-216-296-00	METAL CHIP	0	5%	1/8W
C21	1-163-131-00	CERAMIC CHIP	390PF	5%	50V	JW59	1-216-296-00	METAL CHIP	0	5%	1/8W
C22	1-136-157-00	FILM	0.022uF	5%	50V	JW60	1-216-296-00	METAL CHIP	0	5%	1/8W
C23	1-124-234-00	ELECT	22uF	20%	16V	JW61	1-216-296-00	METAL CHIP	0	5%	1/8W
C24	1-136-273-91	FILM	75PF	5%	630V				< COIL >		
C25	1-164-080-11	CERAMIC	390PF	10%	50V	L11	1-410-780-11	INDUCTOR 27mH			
C27	1-163-103-00	CERAMIC CHIP	27PF	5%	50V	L21	1-410-780-11	INDUCTOR 27mH			
C28	1-163-117-00	CERAMIC CHIP	100PF	5%	50V				< TRANSISTOR >		
C31	1-124-234-00	ELECT	22uF	20%	16V	Q51	8-729-808-01	TRANSISTOR 2SD1622-S			
C32	1-124-234-00	ELECT	22uF	20%	16V	Q52	8-729-808-01	TRANSISTOR 2SD1622-S			
C33	1-124-234-00	ELECT	22uF	20%	16V	Q53	8-729-808-01	TRANSISTOR 2SD1622-S			
C51	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V	Q71	8-729-602-36	TRANSISTOR 2SA1602			
C52	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V				< RESISTOR >		
C53	1-163-022-00	CERAMIC CHIP	0.012uF	10%	50V	R11	1-216-099-00	METAL CHIP	120K	5%	1/10W
C54	1-136-559-11	FILM	0.0047uF	5%	630V	R12	1-216-025-00	METAL CHIP	100	5%	1/10W
C56	1-164-505-11	CERAMIC CHIP	2.2uF		16V	R13	1-216-100-00	METAL GLAZE	130K	5%	1/10W
C57	1-164-346-11	CERAMIC CHIP	1uF		16V	R14	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
C58	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V	R15	1-249-430-11	CARBON	12K	5%	1/4W
C72	1-124-499-11	ELECT, NONPOLAR	1uF	20%	50V	R21	1-216-099-00	METAL CHIP	120K	5%	1/10W
						R22	1-216-025-00	METAL CHIP	100	5%	1/10W
						R23	1-216-100-00	METAL GLAZE	130K	5%	1/10W
						R24	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
						R25	1-249-430-11	CARBON	12K	5%	1/4W
						R31	1-216-033-00	METAL CHIP	220	5%	1/10W
						R32	1-216-033-00	METAL CHIP	220	5%	1/10W
						R41	1-249-393-11	CARBON	10	5%	1/4W F
						R42	1-249-393-11	CARBON	10	5%	1/4W F
						R51	1-216-075-00	METAL CHIP	12K	5%	1/10W
D31	8-719-404-46	DIODE MA110				R52	1-216-075-00	METAL CHIP	12K	5%	1/10W
						R53	1-216-073-00	METAL CHIP	10K	5%	1/10W
						R54	1-216-309-00	METAL CHIP	5.6	5%	1/10W
IC31	8-759-106-02	IC uPC4570G2				R55	1-216-309-00	METAL CHIP	5.6	5%	1/10W
						R56	1-216-298-00	METAL CHIP	2.2	5%	1/10W
						R71	1-216-082-00	METAL GLAZE	24K	5%	1/10W
JW1	1-216-296-00	METAL CHIP	0	5%	1/8W	R72	1-216-081-00	METAL CHIP	22K	5%	1/10W
JW2	1-216-295-00	METAL CHIP	0	5%	1/10W	R73	1-216-089-00	METAL CHIP	47K	5%	1/10W
JW3	1-216-295-00	METAL CHIP	0	5%	1/10W	R74	1-216-089-00	METAL CHIP	47K	5%	1/10W
JW4	1-216-295-00	METAL CHIP	0	5%	1/10W				< VARIABLE RESISTOR >		
JW6	1-216-295-00	METAL CHIP	0	5%	1/10W	RV11	1-241-627-11	RES, ADJ, CARBON 1K			
JW7	1-216-295-00	METAL CHIP	0	5%	1/10W	RV12	1-238-551-11	RES, ADJ, CARBON 220K			
JW52	1-216-296-00	METAL CHIP	0	5%	1/8W	RV21	1-241-627-11	RES, ADJ, CARBON 1K			
JW53	1-216-296-00	METAL CHIP	0	5%	1/8W	RV22	1-238-551-11	RES, ADJ, CARBON 220K			
JW54	1-216-296-00	METAL CHIP	0	5%	1/8W	RV71	1-241-630-11	RES, ADJ, CARBON 10K			
JW55	1-216-296-00	METAL CHIP	0	5%	1/8W	RV72	1-241-630-11	RES, ADJ, CARBON 10K			
JW56	1-216-296-00	METAL CHIP	0	5%	1/8W						
JW57	1-216-296-00	METAL CHIP	0	5%	1/8W						

AUDIO-B**BD**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark				
< RELAY >											
RY31	1-515-913-11	RELAY		J101	1-216-295-00	METAL CHIP	0 5% 1/10W				
< TRANSFORMER >											
T51	1-406-419-11	COIL, BIAS OSCILLATION		J102	1-216-295-00	METAL CHIP	0 5% 1/10W				

*	A-4617-371-A	BD BOARD, COMPLETE		< MOTOR >							

< CAPACITOR >											
C101	1-163-038-00	CERAMIC CHIP	0.1uF 25V	R101	1-216-097-00	METAL CHIP	100K 5% 1/10W				
C102	1-163-989-11	CERAMIC CHIP	0.033uF 10% 25V	R102	1-216-095-00	METAL CHIP	82K 5% 1/10W				
C103	1-126-163-11	ELECT	4.7uF 20% 50V	R103	1-216-091-00	METAL CHIP	56K 5% 1/10W				
C104	1-163-038-00	CERAMIC CHIP	0.1uF 25V	R104	1-216-099-00	METAL CHIP	120K 5% 1/10W				
C105	1-126-154-11	ELECT	47uF 20% 6.3V	R105	1-216-069-00	METAL CHIP	6.8K 5% 1/10W				
C106	1-126-154-11	ELECT	47uF 20% 6.3V	R106	1-216-061-00	METAL CHIP	3.3K 5% 1/10W				
C107	1-126-154-11	ELECT	47uF 20% 6.3V	R107	1-216-114-00	METAL GLAZE	510K 5% 1/10W				
C108	1-163-038-00	CERAMIC CHIP	0.1uF 25V	R108	1-216-105-00	METAL CHIP	220K 5% 1/10W				
C109	1-163-038-00	CERAMIC CHIP	0.1uF 25V	R109	1-216-061-00	METAL CHIP	3.3K 5% 1/10W				
C110	1-163-989-11	CERAMIC CHIP	0.033uF 10% 25V	R110	1-216-049-00	METAL CHIP	1K 5% 1/10W				
C111	1-131-367-00	TANTALUM	22uF 10% 20V	R111	1-216-049-00	METAL CHIP	1K 5% 1/10W				
C112	1-164-232-11	CERAMIC CHIP	0.01uF 50V	R112	1-216-083-00	METAL CHIP	27K 5% 1/10W				
C113	1-164-232-11	CERAMIC CHIP	0.01uF 50V	R113	1-216-071-00	METAL CHIP	8.2K 5% 1/10W				
C114	1-164-161-11	CERAMIC CHIP	0.0022uF 10% 100V	R114	1-216-105-00	METAL CHIP	220K 5% 1/10W				
C115	1-164-161-11	CERAMIC CHIP	0.0022uF 10% 100V	R115	1-216-073-00	METAL CHIP	10K 5% 1/10W				
C117	1-163-038-00	CERAMIC CHIP	0.1uF 25V	R116	1-216-085-00	METAL CHIP	33K 5% 1/10W				
C118	1-163-038-00	CERAMIC CHIP	0.1uF 25V	R117	1-216-085-00	METAL CHIP	33K 5% 1/10W				
C119	1-164-161-11	CERAMIC CHIP	0.0022uF 10% 100V	R118	1-216-093-00	METAL CHIP	68K 5% 1/10W				
C120	1-163-989-11	CERAMIC CHIP	0.033uF 10% 25V	R119	1-216-081-00	METAL CHIP	22K 5% 1/10W				
C151	1-163-019-00	CERAMIC CHIP	0.0068uF 10% 50V	R120	1-216-079-00	METAL CHIP	18K 5% 1/10W				
C152	1-163-038-00	CERAMIC CHIP	0.1uF 25V	R121	1-216-079-00	METAL CHIP	18K 5% 1/10W				
C153	1-163-006-11	CERAMIC CHIP	560PF 10% 50V	R122	1-216-079-00	METAL CHIP	18K 5% 1/10W				
C154	1-164-161-11	CERAMIC CHIP	0.0022uF 10% 100V	R123	1-216-001-00	METAL CHIP	1K 5% 1/10W				
C155	1-163-023-00	CERAMIC CHIP	0.015uF 5% 50V	R124	1-216-001-00	METAL CHIP	10 5% 1/10W				
C171	1-163-038-00	CERAMIC CHIP	0.1uF 25V	R125	1-216-001-00	METAL CHIP	10 5% 1/10W				
C172	1-163-038-00	CERAMIC CHIP	0.1uF 25V	R126	1-216-001-00	METAL CHIP	10 5% 1/10W				
C173	1-163-038-00	CERAMIC CHIP	0.1uF 25V	R127	1-216-001-00	METAL CHIP	10 5% 1/10W				
C174	1-163-038-00	CERAMIC CHIP	0.1uF 25V	R128	1-216-001-00	METAL CHIP	10 5% 1/10W				
< CONNECTOR >											
< IC >											
IC101	8-752-058-77	IC CXA1372AQ		< VARIABLE RESISTOR >							
IC102	8-759-822-36	IC LA6532M		< SWITCH >							

CN101 1-568-796-11 SOCKET, CONNECTOR 22P											
CN102 1-568-795-11 SOCKET, CONNECTOR 12P											

RV101 1-238-600-11 RES, ADJ, CARBON 10K											
RV101 1-241-630-11 RES, ADJ, CARBON 10K											
RV102 1-238-600-11 RES, ADJ, CARBON 10K											
RV102 1-241-630-11 RES, ADJ, CARBON 10K											

S101 1-572-085-11 SWITCH, LEAF (LIMIT)											

LOADING MOTOR **MAIN**

Ref. No.	Part No.	Description	Remark		
*	1-638-730-11	LOADING MOTOR BOARD *****			
		< CAPACITOR >			
C705	1-161-375-00	CERAMIC	0.0022uF	20%	50V
		< CONNECTOR >			
CN705	1-573-383-11	PIN, CONNECTOR (PC BOARD) 2P			
		< MOTOR >			
M702	A-4604-834-A	MOTOR ASSY, LOADING			
*****	*****	*****			
*	A-4356-887-A	MAIN BOARD, COMPLETE (EXCEPT D259:Canadian)			

*	A-4360-507-A	MAIN BOARD, COMPLETE (D259:Canadian)			

*	3-309-144-21	HEAT SINK			
*	4-880-403-11	HEAT SINK			
*	4-949-935-31	CUSHION (FL)			
*	4-955-792-11	HOLDER (5M), FL TUBE			
	7-682-548-04	SCREW +BVTT 3X8 (S)			
		< CAPACITOR >			
C501	1-124-477-11	ELECT	47uF	20%	25V
C502	1-164-159-11	CERAMIC	0.1uF		50V
C503	1-164-159-11	CERAMIC	0.1uF		50V
C504	1-164-159-11	CERAMIC	0.1uF		50V
C511	1-136-161-00	FILM	0.047uF	5%	50V
C512	1-161-374-11	CERAMIC	0.0015uF	20%	50V
C513	1-161-494-00	CERAMIC	0.022uF		25V
C514	1-162-306-11	CERAMIC	0.01uF	20%	16V
C515	1-124-902-00	ELECT	0.47uF	20%	50V
C516	1-161-494-00	CERAMIC	0.022uF		25V
C531	1-124-635-00	ELECT	220uF	20%	6.3V
C537	1-126-177-11	ELECT	100uF	20%	10V
C539	1-164-159-11	CERAMIC	0.1uF		50V
C542	1-124-635-00	ELECT	220uF	20%	6.3V
C543	1-164-159-11	CERAMIC	0.1uF		50V
C549	1-164-159-11	CERAMIC	0.1uF		50V
C550	1-124-635-00	ELECT	220uF	20%	6.3V
C551	1-164-159-11	CERAMIC	0.1uF		50V
C553	1-162-195-31	CERAMIC	4.7PF	10%	50V
C554	1-162-195-31	CERAMIC	4.7PF	10%	50V
C557	1-126-177-11	ELECT	100uF	20%	10V
C558	1-164-159-11	CERAMIC	0.1uF		50V
C601	1-124-472-11	ELECT	470uF	20%	10V
C602	1-164-159-11	CERAMIC	0.1uF		50V

Ref. No.	Part No.	Description	Remark		
C603	1-124-478-11	ELECT	100uF	20%	25V
C604	1-124-478-11	ELECT	100uF	20%	25V
C608	1-164-159-11	CERAMIC	0.1uF		50V
C609	1-164-159-11	CERAMIC	0.1uF		50V
C614	1-164-159-11	CERAMIC	0.1uF		50V
C622	1-161-494-00	CERAMIC	0.022uF		25V
C626	1-162-294-31	CERAMIC	0.001uF	10%	50V
C627	1-162-294-31	CERAMIC	0.001uF	10%	50V
C628	1-162-294-31	CERAMIC	0.001uF	10%	50V
C630	1-162-294-31	CERAMIC	0.001uF	10%	50V
C631	1-162-294-31	CERAMIC	0.001uF	10%	50V
C632	1-162-294-31	CERAMIC	0.001uF	10%	50V
C661	1-162-283-31	CERAMIC	120PF	10%	50V
C663	1-162-282-31	CERAMIC	100PF	10%	50V
C664	1-162-282-31	CERAMIC	100PF	10%	50V
C665	1-162-282-31	CERAMIC	100PF	10%	50V
C666	1-162-282-31	CERAMIC	100PF	10%	50V
C667	1-162-283-31	CERAMIC	120PF	10%	50V
C668	1-124-907-11	ELECT	10uF	20%	50V
C669	1-124-907-11	ELECT	10uF	20%	50V
C671	1-130-480-00	MYLAR	0.0056uF	5%	50V
C672	1-130-480-00	MYLAR	0.0056uF	5%	50V
C673	1-130-471-00	MYLAR	0.001uF	5%	50V
C674	1-130-471-00	MYLAR	0.001uF	5%	50V
C675	1-126-176-11	ELECT	220uF	20%	10V
C676	1-126-176-11	ELECT	220uF	20%	10V
C677	1-124-477-11	ELECT	47uF	20%	25V
C678	1-124-477-11	ELECT	47uF	20%	25V
C679	1-164-159-11	CERAMIC	0.1uF		50V
C680	1-164-159-11	CERAMIC	0.1uF		50V
C681	1-164-159-11	CERAMIC	0.1uF		50V
C688	1-161-494-00	CERAMIC	0.022uF		25V
C690	1-161-494-00	CERAMIC	0.022uF		25V
C800	1-124-563-11	ELECT	2200uF	20%	25V
C801	1-126-176-11	ELECT	220uF	20%	10V
C802	1-124-572-11	ELECT	100uF	20%	63V
C803	1-124-907-11	ELECT	10uF	20%	50V
C804	1-128-548-81	ELECT	4700uF	20%	25V
C805	1-128-548-81	ELECT	4700uF	20%	25V
C806	1-164-159-11	CERAMIC	0.1uF		50V
C807	1-124-907-11	ELECT	10uF	20%	50V
C808	1-124-472-11	ELECT	470uF	20%	10V
C809	1-124-472-11	ELECT	470uF	20%	10V
C811	1-124-443-00	ELECT	100uF	20%	10V
C813	1-164-159-11	CERAMIC	0.1uF		50V
C815	1-124-927-11	ELECT	4.7uF	20%	100V
C816	1-124-907-11	ELECT	10uF	20%	50V
C817	1-124-443-00	ELECT	100uF	20%	10V
C822	1-164-159-11	CERAMIC	0.1uF		50V

MAIN

Ref. No.	Part No.	Description	Remark		Ref. No.	Part No.	Description	Remark	
C823	1-164-159-11	CERAMIC	0.1uF	50V			< COIL >		
C833	1-124-916-11	ELECT	22uF	20% 63V	L501	1-408-417-00	INDUCTOR 47uH		
C888	1-124-907-11	ELECT	10uF	20% 50V			< IC LINK >		
C901	1-162-286-31	CERAMIC	220PF	10% 50V					
C902	1-162-286-31	CERAMIC	220PF	10% 50V					
C903	1-130-467-00	MYLAR	470PF	5% 50V	△PS601	1-532-637-00	LINK, IC 1.0A (D259:AEP, UK, E, IT, AUS, D359)		
C904	1-130-467-00	MYLAR	470PF	5% 50V	△PS602	1-532-685-00	LINK, IC (D259:AEP, UK, E, IT, AUS, D359)		
C911	1-162-294-31	CERAMIC	0.001uF	10% 50V					
C912	1-164-159-11	CERAMIC	0.1uF	50V			< TRANSISTOR >		
< CONNECTOR >									
* CN601	1-691-902-21	CONNECTOR, FFC/FPC 37P			Q541	8-729-900-61	TRANSISTOR DTA114ES		
* CN603	1-568-824-11	SOCKET, CONNECTOR 5P			Q542	8-729-900-61	TRANSISTOR DTA114ES		
* CN604	1-568-943-11	PIN, CONNECTOR 5P			Q543	8-729-900-61	TRANSISTOR DTA114ES		
CN605	1-691-895-21	CONNECTOR, FFC/FPC 18P			Q601	8-729-900-89	TRANSISTOR DTC144ES		
* CN652	1-564-524-11	PLUG, CONNECTOR 9P			Q673	8-729-141-30	TRANSISTOR 2SC3623A-LK		
* CN653	1-564-523-11	PLUG, CONNECTOR 8P			Q674	8-729-141-30	TRANSISTOR 2SC3623A-LK		
* CN655	1-565-291-11	SOCKET, CONNECTOR 13P			Q675	8-729-620-05	TRANSISTOR 2SC2603-EF		
< DIODE >									
D601	8-719-987-63	DIODE 1N4148M			Q676	8-729-620-05	TRANSISTOR 2SC2603-EF		
D802	8-719-933-50	DIODE HZS7C2L			Q677	8-729-620-05	TRANSISTOR 2SC2603-EF		
D808	8-719-000-75	DIODE UZL-7L1			Q678	8-729-900-89	TRANSISTOR DTC144ES		
D810	8-719-010-12	DIODE UZ-2.7BS			Q679	8-729-119-76	TRANSISTOR 2SA1175-HFE		
D811	8-719-000-75	DIODE UZL-7L1			Q802	8-729-140-96	TRANSISTOR 2SD774-34		
D841	8-719-500-36	DIODE D2SB20			Q803	8-729-141-83	TRANSISTOR 2SB1094-LK		
< FERRITE BEAD >									
FB601	1-412-473-21	INDUCTOR OUH			Q809	8-729-119-76	TRANSISTOR 2SA1175-HFE		
FB602	1-412-473-21	INDUCTOR OUH			< RESISTOR >				
FB603	1-412-473-21	INDUCTOR OUH			R501	1-249-420-11	CARBON 1.8K 5% 1/4W F		
FB604	1-412-473-21	INDUCTOR OUH			R502	1-249-417-11	CARBON 1K 5% 1/4W F		
FB605	1-412-473-21	INDUCTOR OUH			R503	1-249-417-11	CARBON 1K 5% 1/4W F		
FB606	1-412-473-21	INDUCTOR OUH			R504	1-249-417-11	CARBON 1K 5% 1/4W F		
FB607	1-412-473-21	INDUCTOR OUH			R511	1-249-423-11	CARBON 3.3K 5% 1/4W F		
FB901	1-412-473-21	INDUCTOR OUH			R512	1-249-429-11	CARBON 10K 5% 1/4W		
< IC >									
IC501	8-752-838-85	IC CXP50120-024Q			R513	1-249-423-11	CARBON 3.3K 5% 1/4W F		
IC502	8-752-352-93	IC CXD2500BQ			R514	1-249-429-11	CARBON 10K 5% 1/4W		
IC503	8-759-821-32	IC CXA1291P			R515	1-249-417-11	CARBON 1K 5% 1/4W F		
IC504	8-752-355-45	IC CXD2565M			R516	1-249-417-11	CARBON 1K 5% 1/4W F		
IC505	8-759-634-51	IC M5218AP			R517	1-249-420-11	CARBON 1.8K 5% 1/4W F		
IC506	8-759-634-51	IC M5218AP			R518	1-249-441-11	CARBON 100K 5% 1/4W		
IC507	8-759-000-49	IC MC14066BCP			R531	1-249-417-11	CARBON 1K 5% 1/4W F		
IC801	8-759-071-48	IC TA7807S			R539	1-249-425-11	CARBON 4.7K 5% 1/4W F		
IC802	8-759-633-42	IC M5293L			R541	1-249-405-11	CARBON 100 5% 1/4W F		
IC803	8-759-630-21	IC M5290P-16			R543	1-249-441-11	CARBON 100K 5% 1/4W		
					R544	1-249-441-11	CARBON 100K 5% 1/4W		
					R547	1-249-441-11	CARBON 100K 5% 1/4W		
					R601	1-249-433-11	CARBON 22K 5% 1/4W		
					R602	1-249-433-11	CARBON 22K 5% 1/4W		
					R603	1-249-433-11	CARBON 22K 5% 1/4W		
					R604	1-249-425-11	CARBON 4.7K 5% 1/4W F		
					R605	1-249-425-11	CARBON 4.7K 5% 1/4W F		

The components identified by mark **▲** or dotted line with mark **△** are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque **▲** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MAIN	OPEN/UP SW	PANEL-B
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Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark				
R606	1-249-425-11	CARBON	4.7K	5%	1/4W	F	R693	1-249-433-11	CARBON	22K	5%	1/4W	
R608	1-249-441-11	CARBON	100K	5%	1/4W		R694	1-249-393-11	CARBON	10	5%	1/4W	F
R609	1-249-440-11	CARBON	82K	5%	1/4W		R695	1-249-433-11	CARBON	22K	5%	1/4W	
R610	1-247-874-11	CARBON	62K	5%	1/4W		R696	1-249-433-11	CARBON	22K	5%	1/4W	
R611	1-249-435-11	CARBON	33K	5%	1/4W		R697	1-249-433-11	CARBON	22K	5%	1/4W	
R612	1-247-878-00	CARBON	91K	5%	1/4W		R801	1-249-435-11	CARBON	33K	5%	1/4W	
R613	1-247-864-11	CARBON	24K	5%	1/4W		R813	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R614	1-247-880-11	CARBON	110K	5%	1/4W		R814	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R615	1-249-440-11	CARBON	82K	5%	1/4W		R815	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R616	1-247-876-11	CARBON	75K	5%	1/4W		R819	1-249-410-11	CARBON	270	5%	1/4W	F
R621	1-249-393-11	CARBON	10	5%	1/4W	F	R820	1-249-438-11	CARBON	56K	5%	1/4W	
R622	1-249-393-11	CARBON	10	5%	1/4W	F	R821	1-249-429-11	CARBON	10K	5%	1/4W	
R625	1-249-429-11	CARBON	10K	5%	1/4W		R826	1-249-417-11	CARBON	1K	5%	1/4W	F
R626	1-249-429-11	CARBON	10K	5%	1/4W		R827	1-249-410-11	CARBON	270	5%	1/4W	F
R627	1-249-429-11	CARBON	10K	5%	1/4W		R852	1-249-429-11	CARBON	10K	5%	1/4W	
R628	1-249-429-11	CARBON	10K	5%	1/4W		< VIBRATOR >						
R629	1-249-429-11	CARBON	10K	5%	1/4W		X501	1-579-833-21	VIBRATOR, CRYSTAL 33MHz				
R630	1-249-429-11	CARBON	10K	5%	1/4W		*****						
R631	1-249-429-11	CARBON	10K	5%	1/4W		*						
R632	1-249-429-11	CARBON	10K	5%	1/4W		1-638-731-11 OPEN/UP SW BOARD						
R645	1-249-425-11	CARBON	4.7K	5%	1/4W	F	*****						
R646	1-249-425-11	CARBON	4.7K	5%	1/4W	F	< SWITCH >						
R652	1-249-433-11	CARBON	22K	5%	1/4W		S702	1-571-300-21	SWITCH, ROTARY (UP/OPEN)				
R653	1-249-433-11	CARBON	22K	5%	1/4W		*****						
R655	1-249-433-11	CARBON	22K	5%	1/4W		*						
R656	1-249-433-11	CARBON	22K	5%	1/4W		1-646-432-21 PANEL-B BOARD						
R661	1-247-862-11	CARBON	20K	5%	1/4W		*****						
R662	1-247-862-11	CARBON	20K	5%	1/4W		< CONNECTOR >						
R663	1-247-862-11	CARBON	20K	5%	1/4W		*						
R664	1-247-862-11	CARBON	20K	5%	1/4W		CN750 1-691-902-21 CONNECTOR, FFC/FPC 37P						
R665	1-249-433-11	CARBON	22K	5%	1/4W		< FILTER >						
R666	1-249-433-11	CARBON	22K	5%	1/4W		FL701 1-519-721-31 INDICATOR TUBE, FLUORESCENT						
R667	1-249-433-11	CARBON	22K	5%	1/4W		*****						
R668	1-249-433-11	CARBON	22K	5%	1/4W		*< RESISTOR >						
R669	1-249-419-11	CARBON	1.5K	5%	1/4W	F	R751 1-249-422-11 CARBON						
R670	1-249-419-11	CARBON	1.5K	5%	1/4W	F	2.7K 5% 1/4W F						
R671	1-249-419-11	CARBON	1.5K	5%	1/4W	F	R752 1-249-422-11 CARBON						
R672	1-249-419-11	CARBON	1.5K	5%	1/4W	F	2.7K 5% 1/4W F						
R675	1-249-421-11	CARBON	2.2K	5%	1/4W	F	R753 1-249-424-11 CARBON						
R676	1-249-421-11	CARBON	2.2K	5%	1/4W	F	3.9K 5% 1/4W F						
R677	1-249-441-11	CARBON	100K	5%	1/4W		R754 1-249-427-11 CARBON						
R678	1-249-441-11	CARBON	100K	5%	1/4W		6.8K 5% 1/4W F						
R681	1-249-425-11	CARBON	4.7K	5%	1/4W	F	R763 1-249-422-11 CARBON						
R682	1-249-425-11	CARBON	4.7K	5%	1/4W	F	2.7K 5% 1/4W F						
R683	1-249-409-11	CARBON	220	5%	1/4W	F	R764 1-249-424-11 CARBON						
R684	1-249-409-11	CARBON	220	5%	1/4W	F	3.9K 5% 1/4W F						
R690	1-249-429-11	CARBON	10K	5%	1/4W		R765 1-249-427-11 CARBON						
R691	1-249-417-11	CARBON	1K	5%	1/4W	F	6.8K 5% 1/4W F						
R692	1-249-429-11	CARBON	10K	5%	1/4W		S750 1-554-303-21 SWITCH, TACTILE (EDIT/TIME FADE)						
							S751 1-554-303-21 SWITCH, TACTILE (CHECK)						
							S752 1-554-303-21 SWITCH, TACTILE (CLEAR)						

PANEL-B	PANEL-U	SW	TC PANEL (A)	TC PANEL (B)							
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark				
S753	1-554-303-21	SWITCH, TACTILE (FADER)		*	A-4357-003-A	SW BOARD, COMPLETE (D259)	*****				
S754	1-554-303-21	SWITCH, TACTILE (MUSIC SCAN)		*	A-4357-196-A	SW BOARD, COMPLETE (D359)	*****				
S755	1-554-303-21	SWITCH, TACTILE (REPEAT)									
S765	1-554-303-21	SWITCH, TACTILE (PROGRAM)									
S766	1-554-303-21	SWITCH, TACTILE (SHUTTLE)									
S767	1-554-303-21	SWITCH, TACTILE (CONTINUE)									
S780	1-554-303-21	SWITCH, TACTILE (TIME)									

*	1-646-431-21	PANEL-U BOARD	*****	D481	8-719-301-42	DIODE SEL2410E					
				D482	8-719-301-49	LED SEL2810A					
				D483	8-719-301-49	LED SEL2810A					
< CONNECTOR >											
CN752	1-506-469-11	PIN, CONNECTOR 4P		S401	1-554-303-21	SWITCH, TACTILE (■)					
				S402	1-554-303-21	SWITCH, TACTILE (PLAY:▷)					
< RESISTOR >				S403	1-554-303-21	SWITCH, TACTILE (PLAY:<) (AMS:▶)					
R755	1-249-422-11	CARBON	2.7K 5% 1/4W F	S404	1-554-303-21	SWITCH, TACTILE (AMS:▶)					
R756	1-249-424-11	CARBON	3.9K 5% 1/4W F	S405	1-554-303-21	SWITCH, TACTILE (AMS:<)					
R757	1-249-427-11	CARBON	6.8K 5% 1/4W F	S406	1-572-269-11	SWITCH, SLIDE (DOLBY NR)					
R758	1-249-432-11	CARBON	18K 5% 1/4W	S407	1-572-268-11	SWITCH, SLIDE (DIRECTION MODE)					
R759	1-249-422-11	CARBON	2.7K 5% 1/4W F								
R760	1-249-424-11	CARBON	3.9K 5% 1/4W F								
R761	1-249-427-11	CARBON	6.8K 5% 1/4W F								
R762	1-249-432-11	CARBON	18K 5% 1/4W								
R766	1-249-422-11	CARBON	2.7K 5% 1/4W F								
R767	1-249-424-11	CARBON	3.9K 5% 1/4W F								
R768	1-249-427-11	CARBON	6.8K 5% 1/4W F								
R769	1-249-432-11	CARBON	18K 5% 1/4W								
< SWITCH >											
S756	1-554-303-21	SWITCH, TACTILE (◀)		D491	8-719-301-37	LED SEL2210S-CD					
S757	1-554-303-21	SWITCH, TACTILE (▶)		D492	8-719-301-49	LED SEL2810A					
S758	1-554-303-21	SWITCH, TACTILE (◀)		D493	8-719-301-42	DIODE SEL2410E					
S759	1-554-303-21	SWITCH, TACTILE (▶)		D494	8-719-301-49	LED SEL2810A					
S760	1-554-303-21	SWITCH, TACTILE (OPEN/CLOSE)		D495	8-719-301-49	LED SEL2810A					
S761	1-554-303-21	SWITCH, TACTILE (▷)		D496	8-719-301-37	LED SEL2210S-CD (D359)					
S762	1-554-303-21	SWITCH, TACTILE (II)		D497	8-719-301-37	LED SEL2210S-CD					
S763	1-554-303-21	SWITCH, TACTILE (■)		D498	8-719-301-37	LED SEL2210S-CD					
S764	1-554-303-21	SWITCH, TACTILE (DISK SKIP)		< RESISTOR >							
S768	1-554-303-21	SWITCH, TACTILE (DISK 5)		R481	1-249-407-11	CARBON	150 5% 1/4W F				
S769	1-554-303-21	SWITCH, TACTILE (DISK 4)		R482	1-249-409-11	CARBON	220 5% 1/4W F				
S770	1-554-303-21	SWITCH, TACTILE (DISK 3)		R483	1-249-415-11	CARBON	680 5% 1/4W F				
S771	1-554-303-21	SWITCH, TACTILE (DISK 2)		R484	1-249-417-11	CARBON	1K 5% 1/4W F				
S772	1-554-303-21	SWITCH, TACTILE (DISK 1)		R485	1-249-426-11	CARBON	5.6K 5% 1/4W				

				R486	1-249-430-11	CARBON	12K 5% 1/4W				
				R490	1-249-407-11	CARBON	150 5% 1/4W F				
				R491	1-249-409-11	CARBON	220 5% 1/4W F				
				R492	1-249-411-11	CARBON	330 5% 1/4W				
				R493	1-249-413-11	CARBON	470 5% 1/4W F				

TC PANEL (B)		LEAF SW-A (DECK A)		LEAF SW-B (DECK B)		TABLE MOTOR		TC MAIN				
Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark	
R494	1-249-411-11	CARBON	330	5%	1/4W			< IC >				
R495	1-249-413-11	CARBON	470	5%	1/4W F		IC81	8-719-710-03	DIODE NJL5165K-B			
R496	1-249-415-11	CARBON	680	5%	1/4W F			< RESISTOR >				
R497	1-249-417-11	CARBON	1K	5%	1/4W F		R81	1-249-414-11	CARBON	560	5%	1/4W F
R498	1-249-420-11	CARBON	1.8K	5%	1/4W F		R82	1-247-818-11	CARBON	300	5%	1/4W
R499	1-249-424-11	CARBON	3.9K	5%	1/4W F		R83	1-247-834-11	CARBON	1.3K	5%	1/4W
			< SWITCH >				R84	1-249-417-11	CARBON	1K	5%	1/4W F
S451	1-554-303-21	SWITCH, TACTILE (■)					R85	1-249-408-11	CARBON	180	5%	1/4W F
S452	1-554-303-21	SWITCH, TACTILE (■ PAUSE)										
S453	1-554-303-21	SWITCH, TACTILE (PLAY:<)										
S454	1-554-303-21	SWITCH, TACTILE (PLAY:>)										
S455	1-554-303-21	SWITCH, TACTILE (● REC MUTE)										
S456	1-554-303-21	SWITCH, TACTILE (AMS:>>)					S81	1-571-958-11	SWITCH, PUSH (1 KEY)			
S457	1-554-303-21	SWITCH, TACTILE (AMS:<<)					S82	1-571-281-21	SWITCH, LEAF			
S458	1-554-303-21	SWITCH, TACTILE (●:REC)					S84	1-571-281-21	SWITCH, LEAF			
S459	1-554-303-21	SWITCH, TACTILE (DUBBING SPEED:HIGH)					S85	1-571-281-21	SWITCH, LEAF			
S460	1-554-303-21	SWITCH, TACTILE (DUBBING SPEED:NORMAL)					S86	1-571-281-21	SWITCH, LEAF			
S461	1-554-303-21	SWITCH, TACTILE (CD SYNCHRO) (D359)										
*	1-634-841-14	LEAF SW-A BOARD (DECK A)										

	3-343-419-01	HOLDER (S SENSOR A)										
		< CONNECTOR >										
*	CNP81	1-568-850-11	SOCKET, CONNECTOR 7P									
		< IC >										
IC81	8-719-710-03	DIODE NJL5165K-B										
		< RESISTOR >										
R84	1-249-417-11	CARBON	1K	5%	1/4W F							
R85	1-249-408-11	CARBON	180	5%	1/4W F							
		< SWITCH >										
S81	1-571-958-11	SWITCH, PUSH (1 KEY)										
S82	1-571-281-21	SWITCH, LEAF										
S86	1-571-281-21	SWITCH, LEAF										

*	1-634-841-14	LEAF SW-B BOARD (DECK B)										

	3-343-419-01	HOLDER (S SENSOR A)										
		< CONNECTOR >										
*	CNP81	1-568-850-11	SOCKET, CONNECTOR 7P									
		< IC >										
C122	1-130-479-00	MYLAR					C122	1-130-479-00	MYLAR	0.0047uF	5%	50V
C123	1-162-291-31	CERAMIC					C123	1-162-291-31	CERAMIC	560PF	10%	50V
C126	1-136-165-00	FILM					C126	1-136-165-00	FILM	0.1uF	5%	50V
C127	1-126-791-11	ELECT					C127	1-126-791-11	ELECT	10uF	20%	35V

TC MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark
C128	1-126-301-11	ELECT	1uF	20%	50V	CN402	1-580-783-11	CONNECTOR, BOARD TO BOARD	
C129	1-126-465-00	ELECT	0.47uF	20%	50V	CN403	1-580-783-11	CONNECTOR, BOARD TO BOARD	
C130	1-126-791-11	ELECT	10uF	20%	35V	CN404	1-580-783-11	CONNECTOR, BOARD TO BOARD	
C131	1-164-159-11	CERAMIC	0.1uF		50V	CN405	1-568-437-11	SOCKET, CONNECTOR 7P	
C132	1-126-791-11	ELECT	10uF	20%	35V	CN406	1-568-437-11	SOCKET, CONNECTOR 7P	
C141	1-126-301-11	ELECT	1uF	20%	50V	CN407	1-568-441-11	SOCKET, CONNECTOR 9P	
C142	1-126-791-11	ELECT	10uF	20%	35V	CN408	1-568-444-11	SOCKET, CONNECTOR 13P	
C143	1-161-375-00	CERAMIC	0.0022uF	20%	50V				< DIODE >
C222	1-130-479-00	MYLAR	0.0047uF	5%	50V	D301	8-719-000-78	DIODE UZL-7L2	
C223	1-162-291-31	CERAMIC	560PF	10%	50V	D302	8-719-987-63	DIODE 1N4148M	
C226	1-136-165-00	FILM	0.1uF	5%	50V	D303	8-719-987-63	DIODE 1N4148M	
C227	1-126-791-11	ELECT	10uF	20%	35V	D304	8-719-987-63	DIODE 1N4148M	
C228	1-126-301-11	ELECT	1uF	20%	50V	D305	8-719-200-82	DIODE 11ES2	
C229	1-124-465-00	ELECT	0.47uF	20%	50V	D306	8-719-200-82	DIODE 11ES2	
C230	1-126-791-11	ELECT	10uF	20%	35V	D401	8-719-987-63	DIODE 1N4148M	
C231	1-161-377-00	CERAMIC	0.0047uF	20%	16V	D402	8-719-987-63	DIODE 1N4148M	
C232	1-161-375-00	CERAMIC	0.0022uF	20%	50V	D403	8-719-987-63	DIODE 1N4148M	
C233	1-124-465-00	ELECT	0.47uF	20%	50V				< IC >
C241	1-126-301-11	ELECT	1uF	20%	50V				
C242	1-126-791-11	ELECT	10uF	20%	35V				
C243	1-161-375-00	CERAMIC	0.0022uF	20%	50V	IC101	8-759-098-75	IC HA12171NT	
C301	1-126-791-11	ELECT	10uF	20%	35V	IC301	8-759-071-48	IC TA7807S	
C302	1-126-926-11	ELECT	1000uF	20%	10V	IC401	8-759-076-36	IC M50964-256FP	
C303	1-123-382-00	ELECT	3.3uF	20%	100V	IC402	8-759-635-63	IC M51943BSL	
C304	1-164-159-11	CERAMIC	0.1uF		50V	IC403	8-759-207-05	IC TA7272P	
C305	1-164-159-11	CERAMIC	0.1uF		50V				< TRANSISTOR >
C306	1-126-933-11	ELECT	100uF	20%	16V	Q101	8-729-620-05	TRANSISTOR 2SC2603-EF	
C307	1-126-933-11	ELECT	100uF	20%	16V	Q201	8-729-620-05	TRANSISTOR 2SC2603-EF	
C308	1-126-926-11	ELECT	1000uF	20%	10V	Q301	8-729-620-05	TRANSISTOR 2SC2603-EF	
C309	1-126-926-11	ELECT	1000uF	20%	10V	Q400	8-729-900-61	TRANSISTOR DTA114ES	
C310	1-126-791-11	ELECT	10uF	20%	35V	Q401	8-729-900-61	TRANSISTOR DTA114ES	
C311	1-126-791-11	ELECT	10uF	20%	35V	Q402	8-729-900-61	TRANSISTOR DTA114ES	
C312	1-126-949-11	ELECT	220uF	20%	35V	Q403	8-729-900-61	TRANSISTOR DTA114ES	
C314	1-124-584-00	ELECT	100uF	20%	10V	Q404	8-729-900-61	TRANSISTOR DTA114ES	
C315	1-126-926-11	ELECT	1000uF	20%	10V	Q405	8-729-900-61	TRANSISTOR DTA114ES	
C316	1-126-933-11	ELECT	100uF	20%	16V	Q406	8-729-900-89	TRANSISTOR DTC144ES	
C317	1-126-933-11	ELECT	100uF	20%	16V	Q407	8-729-900-89	TRANSISTOR DTC144ES	
C318	1-126-933-11	ELECT	100uF	20%	16V	Q408	8-729-900-61	TRANSISTOR DTA114ES	
C456	1-162-290-31	CERAMIC	470PF	10%	50V	Q409	8-729-620-05	TRANSISTOR 2SC2603-EF	
C457	1-162-290-31	CERAMIC	470PF	10%	50V	Q410	8-729-620-05	TRANSISTOR 2SC2603-EF	
C458	1-164-159-11	CERAMIC	0.1uF		50V	Q411	8-729-801-84	TRANSISTOR 2SB1013-4	
C459	1-164-159-11	CERAMIC	0.1uF		50V	Q412	8-729-801-84	TRANSISTOR 2SB1013-4	
	< CONNECTOR >			Q413	8-729-900-61	TRANSISTOR DTA114ES			
				Q414	8-729-900-89	TRANSISTOR DTC144ES			
* CN101	1-564-523-11	PLUG, CONNECTOR 8P							< RESISTOR >
* CN301	1-564-519-11	PLUG, CONNECTOR 4P							
* CN302	1-564-506-11	PLUG, CONNECTOR 3P							
* CN303	1-564-506-11	PLUG, CONNECTOR 3P				R120	1-215-451-00	METAL	18K 1% 1/6W
* CN401	1-564-517-11	PLUG, CONNECTOR 2P				R121	1-249-430-11	CARBON	12K 5% 1/4W

TC MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R122	1-249-431-11	CARBON	15K 5% 1/4W	R412	1-249-411-11	CARBON	330 5% 1/4W
R123	1-249-425-11	CARBON	4.7K 5% 1/4W F	R413	1-249-429-11	CARBON	10K 5% 1/4W
R124	1-249-428-11	CARBON	8.2K 5% 1/4W F	R414	1-249-429-11	CARBON	10K 5% 1/4W
R125	1-249-429-11	CARBON	10K 5% 1/4W	R415	1-249-421-11	CARBON	2.2K 5% 1/4W F
R127	1-249-429-11	CARBON	10K 5% 1/4W	R416	1-249-421-11	CARBON	2.2K 5% 1/4W F
R130	1-249-429-11	CARBON	10K 5% 1/4W	R417	1-249-437-11	CARBON	47K 5% 1/4W
R131	1-249-425-11	CARBON	4.7K 5% 1/4W F	R418	1-249-429-11	CARBON	10K 5% 1/4W
R132	1-249-429-11	CARBON	10K 5% 1/4W	R420	1-249-425-11	CARBON	4.7K 5% 1/4W F
R133	1-249-429-11	CARBON	10K 5% 1/4W	R422	1-249-425-11	CARBON	4.7K 5% 1/4W F
R135	1-247-864-11	CARBON	24K 5% 1/4W	R423	1-249-429-11	CARBON	10K 5% 1/4W
R136	1-249-429-11	CARBON	10K 5% 1/4W	R425	1-249-417-11	CARBON	1K 5% 1/4W F
R137	1-249-429-11	CARBON	10K 5% 1/4W	R426	1-249-417-11	CARBON	1K 5% 1/4W F
R138	1-249-429-11	CARBON	10K 5% 1/4W	R427	1-249-417-11	CARBON	1K 5% 1/4W F
R141	1-249-421-11	CARBON	2.2K 5% 1/4W F	R431	1-249-429-11	CARBON	10K 5% 1/4W
R142	1-249-428-11	CARBON	8.2K 5% 1/4W F	R432	1-249-415-11	CARBON	680 5% 1/4W F
R143	1-247-840-00	CARBON	2.4K 5% 1/4W	R433	1-249-429-11	CARBON	10K 5% 1/4W
R144	1-249-433-11	CARBON	22K 5% 1/4W	R434	1-249-415-11	CARBON	680 5% 1/4W F
R145	1-249-417-11	CARBON	1K 5% 1/4W F	R435	1-249-429-11	CARBON	10K 5% 1/4W
R221	1-249-430-11	CARBON	12K 5% 1/4W	R451	1-249-425-11	CARBON	4.7K 5% 1/4W F
R222	1-249-431-11	CARBON	15K 5% 1/4W	R452	1-249-435-11	CARBON	33K 5% 1/4W
R223	1-249-425-11	CARBON	4.7K 5% 1/4W F	R453	1-249-437-11	CARBON	47K 5% 1/4W
R224	1-249-428-11	CARBON	8.2K 5% 1/4W F	R454	1-247-872-11	CARBON	51K 5% 1/4W
R225	1-247-882-11	CARBON	130K 5% 1/4W	R455	1-247-862-11	CARBON	20K 5% 1/4W
R226	1-247-866-11	CARBON	30K 5% 1/4W	R456	1-247-866-11	CARBON	30K 5% 1/4W
R229	1-249-429-11	CARBON	10K 5% 1/4W	R457	1-247-872-11	CARBON	51K 5% 1/4W
R230	1-249-432-11	CARBON	18K 5% 1/4W	R458	1-249-405-11	CARBON	100 5% 1/4W F
R231	1-247-885-00	CARBON	180K 5% 1/4W	R459	1-249-381-11	CARBON	1 5% 1/4W F
R241	1-249-421-11	CARBON	2.2K 5% 1/4W F	R460	1-249-381-11	CARBON	1 5% 1/4W F
R242	1-249-428-11	CARBON	8.2K 5% 1/4W F	R461	1-249-425-11	CARBON	4.7K 5% 1/4W F
R243	1-247-840-00	CARBON	2.4K 5% 1/4W	R462	1-249-435-11	CARBON	33K 5% 1/4W
R244	1-249-433-11	CARBON	22K 5% 1/4W	R463	1-249-437-11	CARBON	47K 5% 1/4W
R245	1-249-417-11	CARBON	1K 5% 1/4W F	R464	1-247-872-11	CARBON	51K 5% 1/4W
R300	1-249-405-11	CARBON	100 5% 1/4W F	R465	1-247-862-11	CARBON	20K 5% 1/4W
R301	1-249-421-11	CARBON	2.2K 5% 1/4W F	R466	1-247-866-11	CARBON	30K 5% 1/4W
R302	1-249-405-11	CARBON	100 5% 1/4W F	R467	1-247-872-11	CARBON	51K 5% 1/4W
R303	1-249-422-11	CARBON	2.7K 5% 1/4W F	R468	1-249-405-11	CARBON	100 5% 1/4W F
R352	1-249-393-11	CARBON	10 5% 1/4W F	R469	1-249-381-11	CARBON	1 5% 1/4W F
R400	1-249-389-11	CARBON	4.7 5% 1/4W F	R470	1-249-381-11	CARBON	1 5% 1/4W F
R401	1-249-429-11	CARBON	10K 5% 1/4W	R471	1-249-429-11	CARBON	10K 5% 1/4W
R402	1-247-903-00	CARBON	1M 5% 1/4W	R472	1-249-425-11	CARBON	4.7K 5% 1/4W F
R403	1-247-895-00	CARBON	470K 5% 1/4W	R473	1-249-434-11	CARBON	27K 5% 1/4W
R404	1-247-895-00	CARBON	470K 5% 1/4W	R474	1-249-429-11	CARBON	10K 5% 1/4W
R405	1-249-408-11	CARBON	180 5% 1/4W F	R476	1-249-425-11	CARBON	4.7K 5% 1/4W F
R406	1-249-408-11	CARBON	180 5% 1/4W F	R477	1-249-434-11	CARBON	27K 5% 1/4W
R407	1-249-410-11	CARBON	270 5% 1/4W F				< VARIABLE RESISTOR >
R408	1-247-812-11	CARBON	160 5% 1/4W				
R409	1-247-812-11	CARBON	160 5% 1/4W	RV101	1-230-496-11	RES, ADJ, CARBON 10K	
R410	1-247-816-11	CARBON	240 5% 1/4W	RV201	1-230-496-11	RES, ADJ, CARBON 10K	
R411	1-247-812-11	CARBON	160 5% 1/4W				

TC MAIN **TRANSFORMER**

Ref. No.	Part No.	Description	Remark
< VIBRATOR >			
X401	1-577-358-21	VIBRATOR, CERAMIC	

*	1-646-433-21	TRANSFORMER BOARD	

< CONNECTOR >			
* CN701	1-564-512-11	PLUG, CONNECTOR 9P	
* CN702	1-564-507-11	PLUG, CONNECTOR 4P	
< DIODE >			
D801	8-719-200-82	DIODE 11ES2	
D803	8-719-200-82	DIODE 11ES2	
D804	8-719-200-82	DIODE 11ES2	
< TRANSFORMER >			
△T801	1-423-421-11	TRANSFORMER, POWER	

MISCELLANEOUS			

55	1-751-209-11	WIRE, FLAT TYPE (9 CORE) (D259)	
64	1-590-574-11	WIRE, FLAT TYPE (7 CORE)	
65	1-590-485-11	WIRE, FLAT TYPE (7 CORE)	
69	1-751-055-31	WIRE, FLAT TYPE (37 CORE) (D259)	
70	1-690-589-31	WIRE, FLAT TYPE (13 CORE) (D359)	
70	1-751-210-11	WIRE, FLAT TYPE (13 CORE) (D259)	
* 104	1-452-538-11	MAGNET	
114	1-590-849-11	WIRE, FLAT TYPE (5 CORE)	
154	1-537-476-11	JUMPER, FILM (WITH TERMINAL)	
△201	8-848-144-11	DEVICE, OPTICAL KSS-240A	
202	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
271	1-638-983-11	PC BOARD, MOTOR FLEXIBLE	
D701	8-719-970-19	DIODE GP-1A521	
HP901	A-2003-838-A	DECK ASSY, HEAD (DECK A)	
	HRPE901A-2004-190-A	DECK ASSY, HEAD (DECK B).	
IC302	8-759-604-95	IC M5F79M07	
M102	X-4917-523-3	BASE (OUTSERT) ASSY (SPINDLE MOTOR)	
M901	X-3359-417-1	MOTOR ASSY (CAPSTAN)	
M902	X-3363-501-1	MOTOR ASSY (REEL)	
Q302	8-729-209-15	TRANSISTOR 2SD2012	
S701	1-572-713-11	SWITCH, PUSH (WITH CONNECTOR)	

Ref. No.	Part No.	Description	Remark
ACCESSORIES & PACKING MATERIALS			

* 5	4-941-548-01	LABEL, CLASS 1 (D259:AEP, UK, E, IT, AUS, D359)	
7	4-937-945-01	PLATE (TRANSPORT), LOCK	
* 8	3-703-713-41	STICKER, SONY SYMBOL (10) (D359)	

HARDWARE LIST			

#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#3	7-682-554-04	SCREW +B 3X25	
#4	7-682-661-09	SCREW +PSW 4X8	
#5	7-685-136-19	SCREW +P 2.6X12 TYPE2 NON-SLIT	
#6	7-621-255-15	SCREW +P 2X3	
#7	7-621-775-00	SCREW +B 2.6X3	
#8	7-627-556-08	SCREW +P 2.6X2.8	
#9	7-682-548-04	SCREW +BVTP 3X8 (S)	
#11	7-685-648-79	SCREW (M3X12), TAPPING	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

English

93B0563-1

Printed in Japan

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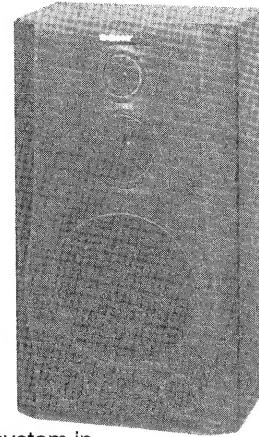
SS-D170

SERVICE MANUAL

SPECIFICATIONS

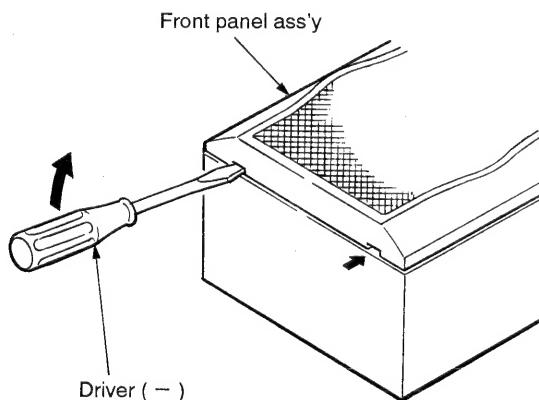
Speaker system	3 way
Mass	Approx. 4.3 kg per speaker
Dimension	Approx. 260 × 450 × 180 mm (w/h/d, including projections)

US Model
Canadian Model
E Model
Australian Model
PX Model



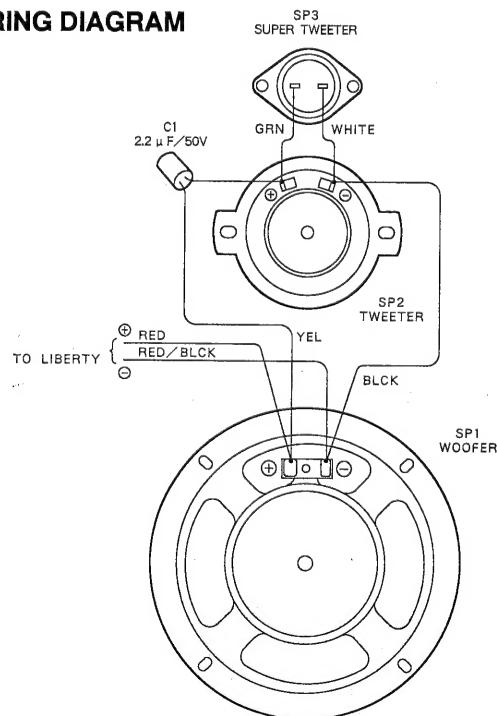
1. DISASSEMBLY

FRONT PANEL ASSEMBLY



This set is the speaker system in
(LBT-D2220/D220CD/D259CD/A270CDM/A11/A11K/A17CD/
A17CDM)

2. WIRING DIAGRAM



SPEAKER SYSTEM
SONY®

3. EXPLODED VIEW AND PARTS LIST

NOTE:

- -XX, -X mean standardized parts, so they may have some difference from the original one.

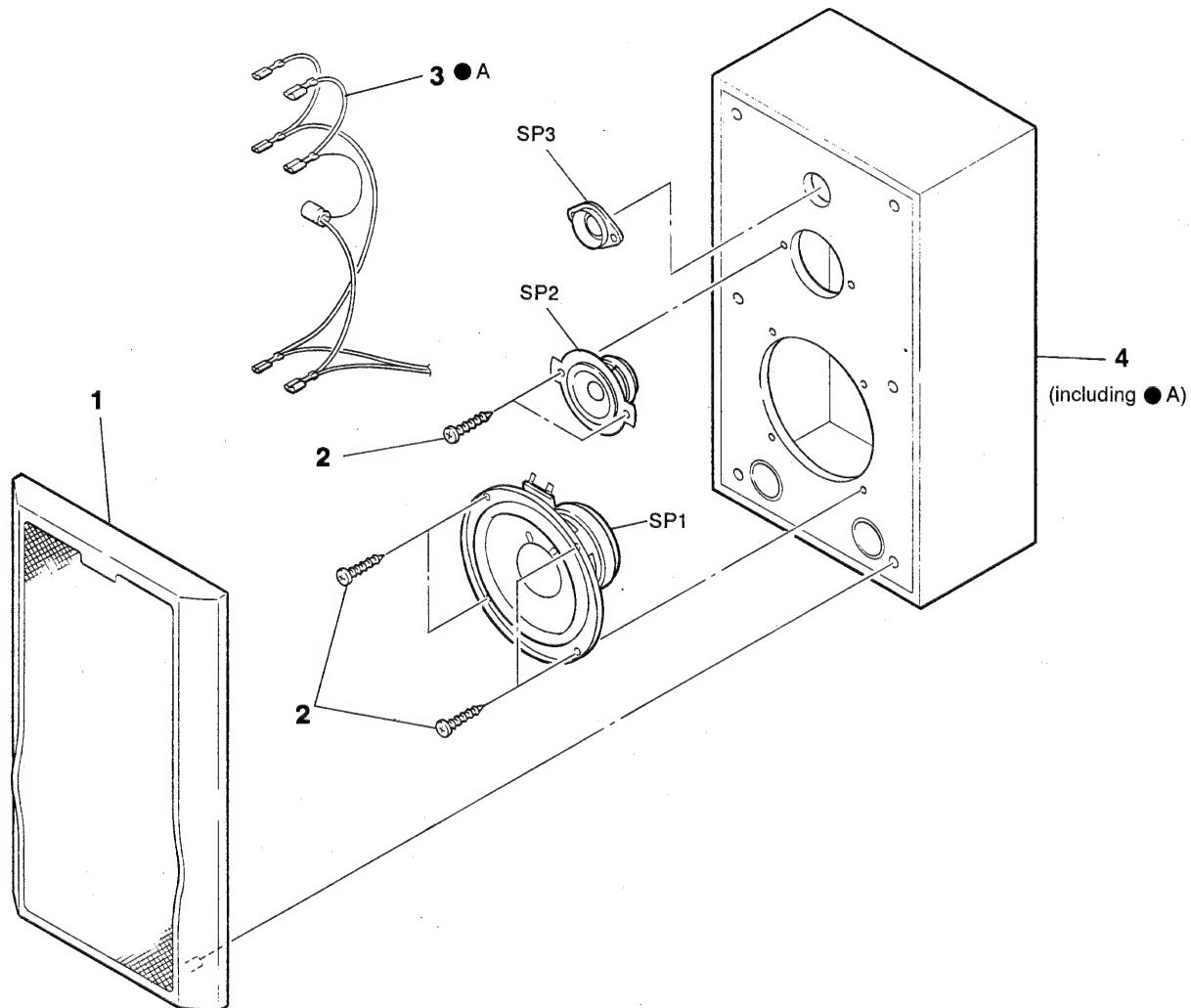
• Color Indication of Appearance Parts

Example:
KNOB, BALANCE (WHITE) ... (RED)

↑
Parts color

↑
Cabinet's color

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.



Ref. No.	Part No.	Description
1	X-4943-134-1	PANEL ASSY, FRONT
2	4-874-614-61	SCREW (M3.5x16) TAPPING
3	1-575-696-11	CORD, SPEAKER (WITH (C))
* 4	X-4943-135-1	CABINET ASSY, SPEAKER
SP1	1-544-451-11	SPEAKER (16CM) (WOOFER)
SP2	1-544-452-21	SPEAKER (6CM) (TWEETER)
SP3	1-544-453-21	SPEAKER (2CM) (SUPER TWEETER)

Remark

English
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Audio Group

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